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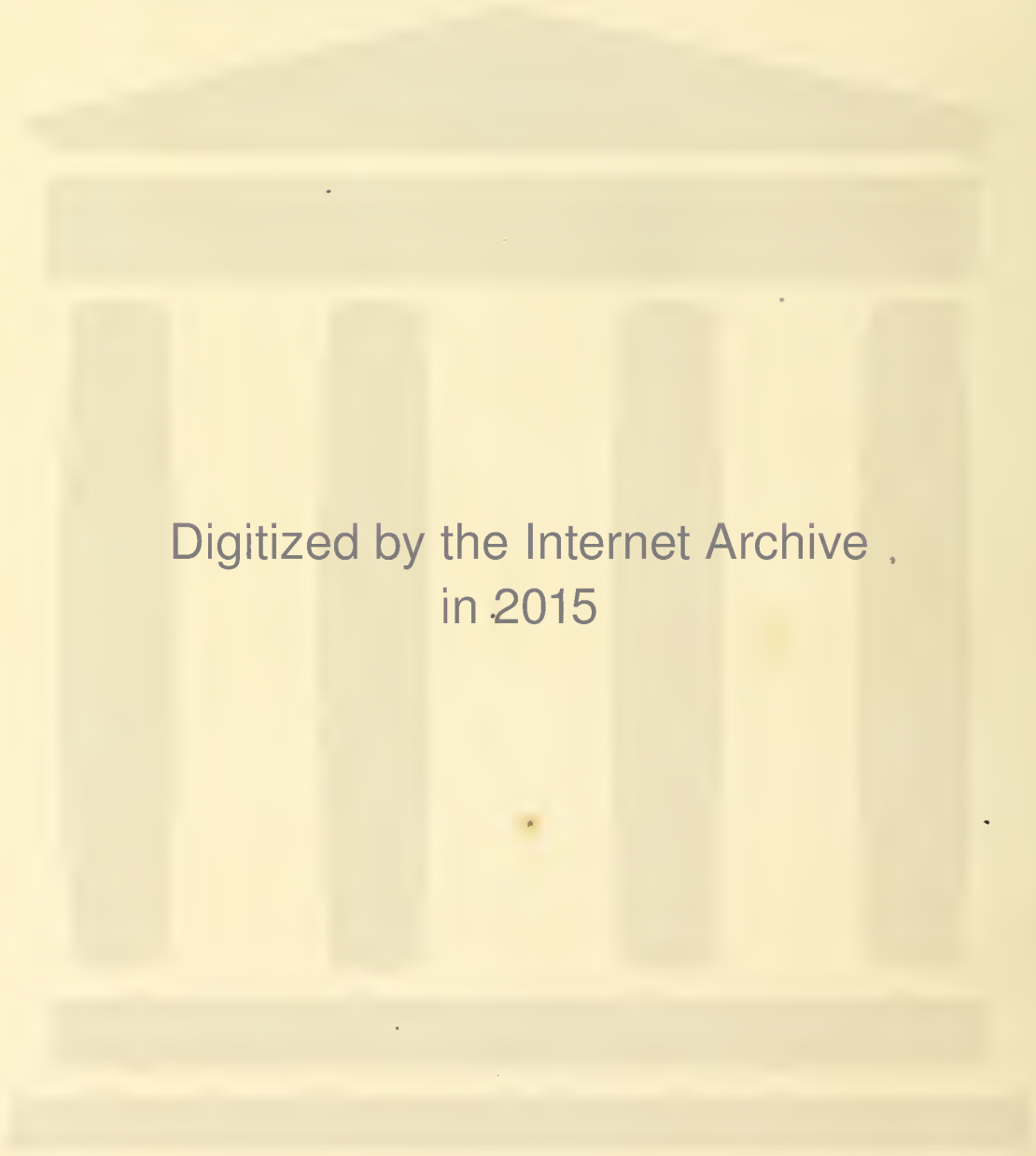
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“The empire of man over material things, has for its only foundation the Sciences and the Arts.”—LORD BACON.

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# THE IRISH BUILDER.

ARCHITECTURAL, ARCHÆOLOGICAL, ENGINEERING, SANITARY,  
Arts and Handicrafts.

*A Look Back and a Look Forward.*



URING the past year much activity has been apparent in the architectural and building world, though Ireland's part therein has been rather small. Projects and schemes have been rife enough in various directions in this island; some few have been commenced,

but the greater portion are shelved. Large buildings of a public character have been sparse with us, though domestic buildings have been many. Of works worthy of notice in the civil and ecclesiastical line, we have given particulars throughout our last volume. In connection with church building and church restoration it must be remarked that in this country operations are generally slow, and the work often has to be carried on as funds are raised. Some of our Roman Catholic edifices are consequently for upwards of a generation in hand, and will take several years more before they are completed. Most ambitious and elaborate works are commenced in this country by the members of different religious communities, without proper forethought as to how the funds can be provided; and, when the work has proceeded for awhile, the funds available are found to be wholly inadequate, and the building is certain to suffer in design and execution. It would be far better to build for the wants of the time, leaving of course some margin for the possible future, than to commence a work which becomes nearly impossible to complete within a reasonable time. Where sufficient funds are in hands, or can be raised without delaying the execution of the work for years, it is of course a different thing.

In this city and in the north and south of the kingdom church building and "restoration" are proceeding, and a good deal of commendable work has lately been executed, evidencing an improved taste, and shewing that the study of principles of design is receiving more attention at the hands of our young architects than in former years.

The Architectural Association of Ireland ended its first session well, and has commenced its second with a good promise, which we trust will bear fruit, for the sake of the profession and the interests of art. We would like to have seen a little more activity displayed by the Royal Institute of the Architects of Ireland, and that body becoming a really representative one. Labour is needed. We may call ourselves what we like, but we will be judged by the outside world by our usefulness alone.

The Irish schools of art are progressing,

and are turning out clever students. Recent examinations have proved that three at least of the chief schools are under the care of efficient head masters and assistants, and that Dublin, Belfast, and Cork will not suffer in comparison with many chief towns and cities across Channel.

Our learned bodies have, during the past year, on the part of several of their members, contributed some valuable papers to the different departments of literature and science. The Royal Irish Academy has still members who would be a credit to any society in Europe. We trust that a greater interest will be manifested in the future on the part of its large body of members to aid the Academy by every honest means to maintain its old reputation.

The Royal Historical and Archæological Association of Ireland, with its limited funds, is, we are glad to say, doing good work. Its proceedings during the past year, published in their "Journal," shew the usefulness of its labours. The preservation of our national monuments is a species of labour worthy of praise, and calls for the support of many who can well afford to contribute.

The yearly exhibitions of the Royal Hibernian Academy have, of course, been continued, and some few works of merit have been on view during the past year. The time has come, we think, for a complete re-organisation of matters in connection with the Academy, so that the intention of its founder, Francis Johnston, may be fully realised. An academy for painting, sculpture, and architecture, needs to be full of life and energy, and we would be glad to see all the branches worthily represented in the Abbey-street institution.

The Royal Dublin Society continues its annual shows in connection with husbandry and other useful arts, and much good is done thereby. The society is still capable of effecting more good if its energies are wisely directed. It is an old institution, and can boast of a creditable history. It must, however, fashion itself to the wants of the time. On its council are influential and talented men, and we have some hopes that the Dublin Society will develop in increased usefulness the older it grows. One of its latest efforts in a useful direction was in connection with the regulation of time, or the timing of public clocks by an electrically controlled system. There is reason to believe that this effort will be successful. Of the Schools of Art in connection with the Royal Dublin Society we have often spoken, and we anticipate large benefits in the interests of trade and manufacture from the lessons imparted to our young men in these schools.

In a sanitary direction, there was some good work accomplished. The Afternoon Scientific Lectures at the Dublin Society in

relation to the public health were in many respects admirable; and besides these lectures some of our well-known public men delivered other lectures of a similar character in the city, which must have done good. The Dublin Sanitary Association has through its officers performed a considerable amount of valuable service, and their vigilance throughout the year is worthy of praise. The Public Health Committee of the Corporation has exerted itself to some extent, and useful service was performed in prosecuting milk adulterators, and habitual offenders against the sanitary laws. A large amount of work still remains to be accomplished, and the Public Health Committee will need to be more active throughout the present year than they have been in the past. The city is still replete with nuisances of every description. Our back streets and lanes, and a very large number of our tenement houses, are in a scandalous state from want of due sanitary supervision and arrangements. Our streets are obstructed and traffic is impeded in different parts of the city, through the carelessness of our Corporate authorities. We noticed the evil several times in these columns, and pointed out the remedy. We can honestly take credit for effecting or leading to reform in this direction. All of the townships have displayed more activity in sanitary matters than the city authorities; and, though much useful time has been wasted in discussion on drainage and sewerage schemes in Kingstown, Blackrock, Dalkey, and Bray, an earnestness has been shewn on the pathway of sanitary reform.

The labour market, though somewhat seriously disturbed in portions of the sister kingdom for short periods during the late year, nothing of serious import took place here. The differences that took place between capital and labour were amicably adjusted. The building operatives in England, after a short dispute got their claims allowed, and workmen in other branches of trade have alike been successful. The frequent recurrence of "strikes" on the part of workmen seems to have led to a union of employers in the sister kingdom, and before the close of the late year the workmen have learned for the first time of a *bonâ fide* "Federation of Employers." Masters have of course a right to unite in a union as well as their workmen for the protection of their interests, but we fear that the new federation will beget an evil that may work a large injury to respectable employers—an injury they do not contemplate. The employer has a right to buy labour in the cheapest market, and the workman has a right to sell his labour in the highest one. A Federation of Employers can be made useful in various ways, but, if it be established for the sole purpose of combating trades union, and re-



sisting "strikes," or the rise of wages when the demands are justifiable, it must fail. The third and fourth rate class of employers and small capitalists would desire no better chance than seeing the large and respectable class of employers at war, in a fierce and protracted struggle with their skilled workmen. Take the "Jerry Builder" class, for instance: As soon as a "lock-out" of large dimensions took place, they would have a chance of securing a class of workmen more skilled and at a lower figure than what the workmen previously received. The "Jerry Builders" will never go into a federation with other respectable employers, and as the public would not be found to wait very long while the Federation and the Trades Union battled, the small employers and capitalists would certainly reap the advantage. Work would not remain long undone, and, as the fight would have to cease at some point, the cessation would of course shew a number of ruined employers, and probably a great number of beggared mechanics.

We cannot, however, in this article enter into all the features of the case. The Federation can do good, but it can also do an infinite amount of harm, if it be utilised for "strike" and lock-out purposes alone. It must always be remembered that labour or work is necessary to make capital, and to command capital in trade and manufacture active labour must be always proceeding. No interest stands alone; all are more or less dependent upon each other.

The dearness of coal throughout the late year restricted the industrial activity to a large extent in many branches of trade, and added to the cost of building materials. It had, however, one good effect, as it turned men's thoughts to systems of economy or to the production of substitutes. In our last volume we devoted several papers to the discussion of our turf industry, and the benefits sure to arise from its judicious development. We have reason to believe that peat will before long play a prominent part in several manufacturing processes, and be largely used in our dwellings. Improved modes of treatment have been discussed to render it generally serviceable. The Irish coal-fields have attracted attention during the late year, and some efforts were made to lead to their more extensive working in different directions. The iron mines of Antrim have also been brought prominently under the notice of the British public, and their working has already led to some important results. The undeveloped resources of this island are many, and it needs but the spirit of enterprise and industry to turn the great portion of them into serviceable account.

We cannot, however, too strongly condemn the pernicious system that finds favour in certain quarters of this city—that of floating companies, bringing forward schemes and projects, and applying to parliament for powers to carry out measures before they have been properly considered and debated. Thousands of pounds are thus annually wasted, and public funds are frittered away that could be usefully applied in a sanitary direction. Our local authorities, or a certain section of them, are the greatest sinners in this direction. Crude schemes are constantly devised, and as constantly fail, for they have never been intended for the public benefit, though the public ratepayer is certain to pay the costs attending their failure.

In this city or the provinces there have not been any deaths of note in connection with

the architectural, engineering, or artistic professions, though in the sister kingdom a few somewhat noted men in connection with architecture have passed away, while several other branches have had to mourn the loss of a number of gifted and remarkable men.

The work of the future embraces many desired reforms, which cannot be effected without co-operation and steady labour. There are many abuses and grievances connected with the architectural, engineering, and building professions which need removal. The relations between architects and builders, and between both and the building workmen, are not as amicable as they should be. The law in respect to building contracts and architects' charges is very defective—indeed we may say, connected with a great deal of architectural practice, it is custom, not law, that is relied upon to settle differences; and, what is customary in one part of the British Islands, is not at all entertained in another part. Some of our judges in courts of law are very severe upon architects, because they have little practical knowledge of the usages of the profession. If a county judge who can speak the Welsh language is necessary in Wales to hear cases, one would think that a judge who studied for some time architectural usages would also be necessary to hear cases as between architects and builders or their clients. Grievous wrong is very often done to both architects, builders, engineers, and operatives in our courts of law by ignorant and prejudiced jurors.

The Assistant County Surveyors in Ireland have real grievances that need redress; they are badly paid—in fact badly treated altogether, and have been so for years. We trust that united action on their part, and on the part of their friends, will lead to some substantial reform in their favour this year. In the sister kingdom during the late year a very useful and essential body was formed, entitled the Municipal and Sanitary Surveyors' Association. There exists a wide and useful field for its labour, and we would like to see a similar association established here, independent or in conjunction.

Last year in this city was signalled by a second exhibition of objects of art and manufacture, but in a pecuniary sense it must be pronounced a failure. It doubtless effected some good, but it cannot be expected that individual enterprise can continue to bear the expenses attending such displays, particularly when they prove unremunerative. Public spirit, good organization and management, are needed in all exhibitions, and in connection with our's we fear there have been some grievous mistakes made.

Some local reforms and wants were advocated during the late year, which called for more public support than they met with. The conversion of the old City Basins into swimming baths was praiseworthy, and we trust that the subject will not be lost sight of. Our Corporation has been dallying for some time with the project of a people's park, but it hangs fire, like the question of a convalescent home. A small floating hospital has been constructed, which will, no doubt, be of service; but in the matter of ambulances for the conveying of the sick and fever-stricken to hospital—a matter which we have urgently advocated,—no proper provision has yet been made. The improvement or re-building of Essex Bridge has been commenced, but we fear the present year will hardly see its finish, though it is an urgent

public want. Carlisle Bridge also calls for attention—a project that has long been delayed. The construction of a new street from the foot of Cork-hill to Christ Church Cathedral is also a pressing want, and the free opening of our public squares—both are matters far more pressing than the minor affair of planting Sackville-street with trees.

Of the Corporation Waterworks Bill and Gas Purchase Bill we have spoken during the late year, and will have occasion hereafter to treat in detail. We have from time to time condemned several ill-digested corporate measures; but we have always been prepared to support a measure, whether corporate or not, when fully convinced it was for the public advantage. We have pandered to no class or party—we attacked no individuals; but public men and public measures are matters within our province, and we shall always exercise our right in dealing with both in the interests of the common-weal.

Despite apparent neglect in many quarters, we are glad to say that sanitary improvement is visible over the island, and the question of the Public Health is meeting with more attention. It is a question in which we feel a deep interest, and will always strenuously advocate. Healthy homes and surroundings, and a sound and practical education for the children of the working poor, will be the salvation of Ireland.

The year commences with a good promise, and as far as we are concerned we will not fail in this journal in doing our duty to our constituency, and we trust that we will not count in vain upon their assistance when questions vitally effecting their interests crop up for earnest consideration from time to time. With these remarks we conclude our review, and enter upon the sixteenth volume and year of the existence of the IRISH BUILDER.

January 1st, 1874.

## CIVIC LYRICS.—No. LII.

OBIT 1873.

Ding, dong, dell,  
Ring a final knell  
For the spirit fled  
Of the Old Year dead.  
Once mighty and proud,  
He inspired the crowd  
In the right and wrong.  
Pass him along.

Ding, dong, dell,  
To many a sell;  
Great projects and schemes  
In the land of dreams;  
Of loans from the Mint,  
Of gas without stint,  
And work for a song.  
Pass it along.

Ding, dong, dell,  
To each noisome smell  
In the Liffey's bed,  
And from overhead,  
In the haunts of the poor,  
Upon street and floor,  
With the weak and the strong.  
Pass it along.

Ding, dong, dell,  
To jobbers that fell,  
And never got up  
To a bite or sup,  
At the public expense,  
Under any pretence.  
Trampled by the throng,  
Pass them along.

Ding, dong, dell,  
With a pull pell-mell,  
Ring the Old Year out  
With a joyous shout;  
Let the sins on his head  
Be buried with the dead—  
We'll forgive the wrong.  
Pass him along.

CIVIL.



## PUBLIC HEALTH IN IRELAND.

THE last issued Quarterly Return of the Registrar-General furnishes many items of interest, and of serious consequence in a sanitary aspect. The reports of the district registrars prove plainly what we have ourselves asserted many times—the defective sanitary arrangements that exist in the majority of the cities and towns of this country. As we proceed we will select instances of places that need a vigilant supervision on the part of the authorities, principal and local.

In Ahoghill, Ballymena, zymotic diseases have been prevalent for some time, and it is not to be wondered at when the cesspools and sewers are in a bad state from neglect.

Portions of Belfast need attention; and the registrar is of opinion that a great deal could be done to lessen the prevalence of disease among the mill-workers by improved ventilation of their workrooms. Phthisis carried off a number of hands.

Castleblayney is healthy; but infectious diseases, when they occur there, are traced to the “dung pit” and “bad whiskey.” Despite these drawbacks, one old widow reached 102 years. Portions of Cookstown are bad, and the sanitary state of the electoral division of Muntirevin very bad. The cesspools, in the majority of cases, are close to the dwellings. Among the deaths at Coagh, there was one who is said to have reached 103 years. Several districts in Lisburn are in an unsatisfactory state, principally, it would seem, from bad sewerage and unremoved nuisances. Several of the houses are ill-constructed; typhoid fever and severe forms of zymotic diseases prevail. In different parts of Lurgan, scarlatina of a malignant type has been working havoc in the back streets and places among the poor. The sanitary arrangements in the towns are most imperfect, and should call for immediate attention on the part of the local authorities. In Newry, the town proper appears to be in a satisfactory state, but the outlying portions call for improvement. At Newtownlimavady two deaths were registered—one at 101 and another 102. In Drogheda the sewerage is very imperfect, and the Local Government Board has placed itself in communication with the Corporation, with a view towards having the sanitary defects existing remedied. Scarlatina to some extent exists. In Dublin south, at Donnybrook, there were several infant deaths from diarrhoea. In the south city districts Nos. 1 and 2 diarrhoea and scarlatina have been prevalent, and a number of deaths have occurred through scarlatina in the last district. We are sorry to notice that Kells, after all it has suffered, is allowed to remain in an unsatisfactory state in regard to its sewerage. The water supply is not safe, and the sewers open into open drains. At Killeshandra, Cavan, bad sanitary arrangements exist, and why not, as pigs and asses are lodged in the houses with many of the kind-hearted families? The water supply in Mullingar is very bad; and there is no reason that we can see why it should not be very good. The supply is obtained from wells. The Town Commissioners should be compelled to put down piping, and obtain the supply from the adjoining lake. At Crosa-kiel, Oldcastle, zymotic diseases have proved fatal, fever being rather prevalent. The death is recorded of an old woman at 101, who only four days before her death was able to walk a good distance without any assist-

ance. In portions of Athy the dwellings of the poor are in a bad condition, and measles prevail. In portions of Carlow the sewerage is in a very defective state, some of the streets in Graigue having cesspools full of decomposing vegetable matter. Almost every house is represented to have a superficial sewer running through it, which conveys the surplus water off the manure or dirt of the back yard through the dwelling to the street. It is not to be wondered that fevers should be seldom absent from such dwellings. In parts of Kilkenny there have been a great number of cases of measles and scarlatina. The children have been doctored by their parents with strong doses of whiskey punch, under the belief that it is a fine thing for “driving out the rash.” At Bangor, Belmullet, the fever cases were all traced to the defective sanitary arrangements. The small farmers have their cattle in their dwellings, and allow the urine and dung to collect for days before removed, and when removed of course it is placed a few feet from the door, so that it may drain itself once more for the benefit of the family circle. At Dromore West, typhus and typhoid fevers were prevalent during the quarter, there being upwards of 30 cases, 3 proving fatal. The local registrar reports—“Sanitary precaution is usually disregarded. It is really shocking to see large families in one common apartment, the door being the only aperture, thereby rendering ventilation ineffective; two, three, or four persons lying in one small bed, some at the head and some at the opposite end, with very unclean body and bed clothes (with horse, cow, and pigs at one end of the solitary apartment). They are generally unwilling to be removed to a fever hospital, and unfortunately some friends will show their sympathy by visiting them, and thereby take the disease or convey it to others.” This is a sad picture—nearly as bad in one respect as the case of the “Devon Savages.” Some person or persons must visit those stricken down with fever. If neighbours do not come, members of the family will go in pursuit of family wants, so contact is often unavoidable. All the danger could be prevented if the local authorities were compelled to do their duty, and individuals, where able, compelled also to house themselves with decency.

At Killeroran, Mountbellew, fever is prevalent, and sanitary improvement absent in most places. In parts of Dungarvan there are scarcely any attempts at sanitary prosecutions. At Kilmakeroge, Waterford, mortality was principally among the young and aged. There has been some improvement in a sanitary direction, but much is still wanting. The dwellings of the agricultural labourers are wretched, ill-constructed, and scarcely ventilated at all. Measles and whooping cough were prevalent of late in the district, and terminated fatally in a number of cases. At Clonakilty fever and scarlatina were prevalent; and diarrhoea or English cholera, arising mostly of course from absence of sanitary arrangements and from defective sewerage.

The registrar of the Cork District No. 2 reports:—“Although the sanitary condition of my district is and has always been far from satisfactory, yet owing no doubt to the absence of marked epidemic influence, the death-rate has been very low during the quarter. A sanitary association has just been established here, whereby private individuals will endeavour, in some measure at

least, to make up for the shortcomings and neglect of the proper sanitary authority; but the ultimate success of the association is questionable, considering that it is not invested with legal powers which would render its proceedings energetic and valuable.” Notwithstanding, we trust that the new association will do good, and, like the kindred association in Dublin, merit commendation for its labours.

In parts of Limerick a bad form of enteric fever has been prevalent, and no wonder, for at Bridgetown at least, the houses and yards attached to dwelling-houses are reported to be replete with filth and noxious cesspools, from which emanate most offensive odours, and this has been the condition of the houses and yards in more than two-thirds of the district.

At Abbeyfeale, Newcastle, throughout the present year typhus fever has been prevalent—dung-pits and foul cesspools helping in its existence and spread.

Skibbereen, of Irish famine notoriety, has at present a low death-rate, but a number of the thatched cabins of the poor have their cesspools and dung-heaps existing—a fertile source, certainly, of contagious diseases. Respecting Skull—the sister in misfortune with Skibbereen—the local registrar reports that, “judging from the action, or rather inaction, of constituted authorities, it would appear as if they considered overcrowding of men, women, children, and beasts into one domicile; water surcharged with every abomination—in fact utter neglect of the most ordinary sanitary measures,—as the best means of conducting to health. I fear it will prove a dangerous experiment, as from shipping, &c., it is more than probable cholera will make an early appearance. Contrary to the orders of the Local Government Board, no steps have been taken to provide a cholera hospital.”

We have now given some of the worst instances of sanitary neglect throughout the country, but there are several other districts nearly as bad. We are glad, however, to add that there has been a marked improvement in several other districts, which goes some distance to compensate for the general indifference.

The deaths registered in Ireland during the third quarter of the present year amounted to 19,271, affording an annual ratio of 1 in every 69·2, or 14·4 per 1,000, of the estimated population. The death-rate was highest in Dublin, Waterford, Kilkenny, Antrim, and Kildare.

Among the prevalent diseases in several districts were those of small-pox, measles, scarlet fever, diphtheria, whooping cough, fever, diarrhoea, and simple cholera. The total number of deaths from zymotic or epidemic diseases registered during the quarter was 2,425, or 12·6 per cent. of the total deaths.

The number of persons who received outdoor relief was higher, as also the inmates in the poorhouses. In regard to emigration, the number of persons reported to have left the several seaports during the quarter ending in September amounted to 19,432, or 10,712 males and 8,720 females, being 2,693 more than the number who emigrated in the corresponding quarter of last year.

The facts we have given above afford a serious lesson to our rulers and ourselves, and we hope from their perusal action may be awakened on every side with a view to the preservation of the public health throughout this new year.



## THE BUILDING STONES OF IRELAND.\*

### CHAPTER I.

*Introductory—Strata—Theory of the Origin of Igneous Rocks—Deposition of Sedimentary Rocks—Distribution of Stone—Chalk—the Volcanic Rocks—Gypsum.*

THERE is nothing of more importance to the student in architecture than a knowledge of the geological formation of the country which it is intended shall be the scene of his future action; and although, it may be, many of our young friends will possibly adopt other climes and other scenes in their future programme, yet to be acquainted with the nature and composition of the building stones of their native country (as we hope to be enabled to give in these chapters) can scarcely fail to be interesting, particularly as practical geology in its study is uniform over the entire globe, and does not depend either on climatic influences or upon mere theory—the only differences being that stone of one formation predominates more in one country than another, and that volcanic products preponderate in many.

Modern books of science, and more particularly geology, are generally abstruse, and abound so in technical terms that it is often difficult to arrive at conclusions from their reading. We will, therefore, adopt a plainer phraseology, and try to describe the Building Stones of Ireland in a manner to be intelligible to the readers these chapters are intended for.

In the first instance, our endeavour shall be to explain the primeval causes by which stone is produced, with a general view of stone districts; and then describe their different combinations, and enumerate the localities in which each kind useful for constructive purposes exists.

To examine a section of country in which its geological formation can be readily explained, is not often obtainable. True it is we have in the gorges of mountain torrents and in clefts of mountains sectional areas laid bare of greater or less magnitude; but these are generally so overgrown with tangled brushwood and fern as to be undistinguishable, except to the practical geologist.

In modern railway cuttings we have examples (although but upon a small scale) of beds of different strata occasionally disposed horizontally, but generally inclined in consequence of primitive rocks protruding through them. If it were possible to arrive at a sectional cutting of the surface of a country which had never been upheaved, we would find it in the following order:—First, mould at the surface; below it, beds of clay of varying thicknesses and tenacities, sometimes interspersed with boulders; then, sand and gravel; underneath which, stratified rock; and, beneath all, the primitive or igneous rocks. But a horizontal section like this could not be, from the constitution of the earth. The primitive rocks we generally find at the surface, and in most elevated positions. Modern geologists—amongst the rest Dr. Lardner, in "The Crust of the Earth, or First Notions of Geology"—teach us the theory that this globe of ours was once a fluid mass in a state of igneous fusion; that by degrees it gradually cooled down, and a crust was formed upon its surface, of which granite and other igneous rocks are the representatives; and when cooled down, that, by condensation of the surrounding atmosphere, it became one vast ocean. Convulsion upon convulsion followed, by which mountain and dry land were reared over the surface of the waters; and, if this be correct, we must impute the formation of all other rocks to granitiform origin.

That countless ages elapsed during the formation of the successive beds of stratified rock, is apparent when we recognise the slow agencies by which similar effects are now produced. As we have before mentioned, the granitiform and other primitive rocks were first upheaved; and as each convulsion neces-

sarily produced corresponding changes in the disposition of the waters of the ocean, the dry land previously formed was overflowed, and this with the disintegration and wearing away by the action of rain, together with frost and thaw in the higher altitudes caused the detritus to be carried away and held in suspension by water. The heavier particles subsided, and the lighter formed other deposits over them. These are the mica slate and clay slate rocks, the first of stratified formation; and we invariably find them bearing traces of combination with igneous matter. These were again upheaved and worn away in their turn, until they became the foundation of marbles and limestone, whose component parts are simply a deposit of terrestrial substances with an immense intermixture of fossil product of marine origin.

The formation of sandstone is easily shewn. It is the detritus of former rocks carried into the sea; and any one standing upon a beach, beholding wave after wave depositing layers of sand, sees it going on at the present. It is only necessary that this beach should be submerged and subjected to the pressure of water to produce sandstone.

It needs no great stretch of imagination to prove, at a remote period of geological history, that Ireland was divided into two distinct islands, and at a period further remote that it consisted of a series of islands, formed by some of the present mountain ranges; and that these now form our most elevated districts is verified by the presence of ancient sea-beaches and deposits of marine shells approaching the summits of many; while it is plain to the most casual observer, from the present appearance of the greater portion of the counties Galway and Westmeath, that the waves of the Atlantic flowed for ages over them, the limestone formation cropping out upon the surfaces worn by wave marks, while the deposit of boulders with large and small stones of pebbly origin uncontestedly prove the former scene of an ocean bed.

Numerous instances of the alternate elevation and depression of the earth's surface within historic times have occurred, but perhaps the most remarkable example is that of the Temple of Jupiter Serapis, of which three columns are still standing at their original full height upon the shore of the bay Baiae near Naples. There is sufficient evidence to shew that the building—a quadrangular structure of forty-six columns in its original, the foundation of which can still be traced—stood some distance above high water mark, and, from inscriptions yet remaining recording its embellishment, that it was erected at the commencement of the third century. In 1530 it is described as being covered by the sea; eight years later the coast line of Baiae was again raised 20 ft. with a tract of 600 ft. in breadth, and the building re-elevated to its former position.—(Vide Lyell's "Principles of Geology," vol. i., chap. xxv., page 522.)

We cannot adopt the tradition so beautifully alluded to by Moore in the lines—

"On Lough Neagh's banks, as the fisherman strays,"

because it has not been verified by modern scientific research; but this tradition possibly may have some foundation in truth from the volcanic evidences of the entire of Ulster.

A great proportion of the elevated heights of Leinster, Ulster, and parts of the coast line of Galway and Donegal consist of granite; the entire central and portions of the southern districts lying at a lower level

\* "Lough Neagh is traditionally stated to have been formed by an eruption of the sea in the year 62; but it is obviously formed by the confluence of the Blackwater, Upper Bann, and five other rivers."—(Lewis's *Topographical Dictionary of Ireland*.) That its bed and that of the adjoining lake (Lough Beg) may, at a remote period of Irish history, have been partially dry land, is not at all inconsistent with belief, because their only outlet is the Lower Bann, which is obstructed by weirs, many of them large masses of boulder carried down at remote periods by floods, and deposited in its course. The ordinary level of Lough Neagh is 48 ft. above the sea at low water; Lough Beg is 15 ft. lower; therefore an eruption of the sea without a depression of their present beds, of which we have no record of within historic times, is not likely to have occurred.

are of limestone, occasionally interspersed with sandstone and numerous boulders; while the southern ranges, with part of the south-eastern, are of sandstone and clay slate. Carrantoul, the highest mountain in Ireland, is of the former formation; and so, also are many of the mountainous districts of the west; while several of the headlands of Kerry, also Mangerton, Macgillicuddy, and the Glengarriff (Cork) mountains—presenting some of the boldest, most diversified, and picturesque scenery in this island—are of the latter. Therefore, we find that stone of every description suitable for building purposes is generally diffused over Ireland.

We have not alluded to the chalk districts of Antrim, Down, Derry, and other parts of the north, generally superimposed by the igneous, trappean, and basalt rocks. Gypsum occurs in portions of this formation, particularly between Moira and Belfast, in which latter city it has been extensively used in the manufacture of plaster of Paris. Of these more hereafter.

### CHAPTER II.

*Tests applied to Stone—Irish Marbles—Granite.*

Some years since, Mr. Wilkinson, architect to the Poor Law Commission, presented to the Economic Museum of the Geological Society of Dublin over six hundred specimens of building stones, representing every known quarry in Ireland, cubes of which he had previously submitted to a variety of tests in reference to their capabilities of resisting atmospheric influence, their relative absorption of water, their sustaining power with regard to crushing force, and resistance of transverse fracture. These, with the collection of marbles for the Museum of Irish Industry (now the Royal College of Science), St. Stephen's-green, Dublin (both of which are free to public inspection) afford a most valuable and interesting medium of instruction to all who are in connexion with practical building.

In commencing these chapters it was originally our intention to follow "The Building Stones of Ireland" in regular geological succession, and to have deferred a notice of marbles until we had reached the chapter upon limestones.

However, we hope our readers will not consider it amiss in thus early calling their attention to the following extract from Dr. (now Sir Robert) Kane's "Industrial Resources of Ireland," which proves that this material exists in every variety, but, unfortunately for the country, foreign marbles are to be had in abundance while the native produce cannot generally be obtained manufactured. In this we must except the celebrated Galway (black) marble, and in a lesser degree the Connemara (green), for both of which there is considerable demand:—"The limestone districts of Ireland contain numerous beds, which the closeness of texture and the purity or variety of colour render available for ornamental purposes as marbles. I shall only enumerate the localities in which the most remarkable marbles are found. There is no county which does not afford specimens of greater or less excellence. The principal quarries of black marble are those at Kilkenny and near the town of Galway; these are both in the upper limestone. The Kilkenny marble takes a beautiful polish, and when first cut is quite black; but the organic matter to which its colour appears to be due gradually passes off, and ultimately white marks of fossils of varied and interesting forms present themselves upon its surface. The Galway marble quarries are situated along the verge of Lough Corrib; they supply a large quantity of marble annually to London and New York, but are capable of almost indefinite development. Near Armagh is found a marble which, from the excellence of its surface, and the variety of red, yellow, and brown tints which it shews, possesses great beauty; it contains abundant remains of fossil fish.



A similar marble, elegantly variegated with yellow and purple, occurs at Churchtown, in Cork, which county is indeed rich in this material, there being found black marble at Churchtown and Doneraile.

"Purple and white, and blue and white marbles also at Churchtown; ash-coloured, grey, and dove-coloured marble at Carrigaline and Castlemary; pale brown marbles at Kilcrea.

"In Kerry there are black and white variegated marbles near Tralee; and in the islands in the River Kenmare, near Dunkerron, marbles of various colours—black and white, purple, white, and yellow, and some specimens of a purple colour veined with dark green resembling blood-stone.

"At Cragleith, in Down, at Lyons and Ballysimon, in Limerick; at Westport, in Mayo; and at Castlebegs, in Tipperary, are quarries of black marble. At Clondeslough, in Clare, a fine bourella marble. Near Shannon Harbour, on the Galway side, fine Sienna and dove marbles. At Clonmacnoise, King's County, and Dronineer, in Tipperary, are fine grey marbles variously tinted, and peculiarly sound and useful. At Killarney occurs a very beautifully striped white and red marble, and a brownish red mottled with grey of various shades at Ballymahon, in Longford.

"The primitive limestones of Connemara and Donegal supply white marbles, which in Galway is often absolutely pure in tint, but in Donegal it is more frequently of a greyish cast. The Galway marble has been already noticed (page 241) as the strongest of limestones when used for building.

"The west of Galway and Mayo is also remarkable for the serpentine rocks, which afford the beautifully variegated green and white marbles so deservedly esteemed; the most valuable quarries of this remarkable mineral are situated near Clifden, on the estate of Mr. D'Arcy. This marble is exported in considerable quantities."

Large quantities of continental marbles are annually imported into Ireland, many of them very inferior to what can be produced at home. We have often stood in amazement looking at the numerous quarries of Galway, particularly in the neighbourhood of Oughterard, where, if easy access to the water carriage of Lough Corrib were available, mines of inexhaustible wealth would be made accessible.

Perhaps the most useful though not the most widely diffused stone is granite, fitted alike, according to the different localities whence it is derived, for the finest moulding purposes or the coarsest rubble work. According to Lyell's description, it is "An unstratified or igneous rock inferior to or associated with the oldest of the stratified rocks, and sometimes penetrating them in the form of dykes or veins. It is composed of three simple materials—felspar, quartz, and mica, and derives its name from having a coarse granular stratum—*granum*, Latin for grain."

Granite exists in considerable quantity in the Counties of Dublin, Wicklow, Carlow, Down, Galway, and Donegal, and in the central districts in isolated masses, either in small patches or in the form of boulders. The granite district of Dublin commences on the sea shore at Williamstown, extending through Blackrock, Kingstown, Dalkey, and Killiney to Bray Head, stretching inland to Golden Ball, Sandford, and Dundrum, until it reaches the borders of Kildare. The Wicklow granite, which is a continuation of the Dublin formation, commences inside Bray Head, and passes at a distance of some miles from the sea shore inland, until it approaches New Ross in the County Wexford, extending in a parallel line bordering upon Kilkenny and into Carlow.

The Newry granite, as it is called, occupies portions of the counties Down and Armagh, and constitutes the greater part of the hills of Carlingford and the mountains of Mourne, which form so attractive a feature in the scenery of Carlingford Bay. The Galway granite commences at Galway, and stretches

along the coast to Roundstone; its northern edge passing close to Oughterard, and includes the islands off the coast. The Donegal granite, largely intermixed with quartz, stretches inland along the north-western shore for an average distance of 18 miles, while its entire length is about 35 miles.

Granite varies greatly in quality and fitness for building purposes. In the County of Dublin, from the quarries of Dalkey, it is of exceedingly hard nature, of a bluish tint, and difficult to work, but is a most enduring stone, and takes a high polish. At Golden Ball it is of fine grain, undistinguishable from the best quarries in Wicklow; while towards Dundrum, it is coarse-grained, friable and altogether unfitted for any but the roughest work. The surface stone everywhere in the county near Dundrum and further south is largely intermixed with mica; the mountain streams, carrying it down in its disintegrated state, accumulate quantities of this glittering substance in their sand banks. At upper Lough Bray the shores are literally composed of laminated beds of mica averaging the size of sixpence; we have often collected quantities of it. Wicklow granite, from its even and close texture, can be chiselled into every variety of molding, and may easily be carved into Corinthian and Ionic capitals, particularly when they are of large diameter; but it is not to be recommended for the latter purposes, as the greater the facilities it affords the less enduring is the stone.

Carlow granite is celebrated for the facility with which it splits into long lengths, and of small scantlings; also for its whiteness, easy working, and durability, all over the county, but particularly in the vicinity of Bagnalstown; fences of the simplest kind made of this stone are to be seen formed by upright pieces sunk in the ground with continuous lintels averaging from 6 ft. to 9 ft. in length laid over them, which require no fastening, as the weight of the longitudinal stone keeps it steady upon the upright; a quickset hedge is generally planted underneath, and it forms the most impervious of all fences. It is a beautifully close-grained stone, and can be worked into almost all ornamental purposes for building.

The granite of the Mourne Mountains is of flesh-red colour, easily wrought, and some specimens polish admirably.

A great variety exists in Galway granite; some of it is coarse-grained, with a large intermixture of quartz, but it is generally suitable for cut-stone work.

The quarries of Donegal have not as yet been sufficiently worked to pronounce a fair opinion upon the stone. It is coarse and very granular, with a reddish tinge, and generally soft and easily disintegrated. Where deeper workings have been effected, the stone is of strong but coarse quality, with quartz as its prevailing feature.

(To be continued.)

## ON FIREPROOF BUILDING.\*

### PART II.

THERE are a great many terms in ordinary use which require to be taken with a limitation of their meaning, if we wish to insure accuracy of speech and thought. We must be careful always to remember that they are only relative, that they express fairly enough the direction towards which we are tending, but will be most erroneously used or interpreted as describing an end at which we have arrived. This is a most important thing to be attended to. I may remark in passing, precision in the use of words requires precision in our ideas, and both begets and preserves accuracy. I have to read many specifications of many different men, and it has

been forced upon me that too much care cannot be bestowed by a student of architecture on acquiring precise, definite ideas of things, and of the natural order and sequence of things, and in describing them in clear grammatical language—technical it must be,—but avoiding meaningless, routine cant, which is generally the refuge of ignorance. Doctors would not have stuck to Latin so long, had their prescriptions earlier borne the test of reason and common sense.

"Fireproof," then, is only a relative term; we do not mean by it that the substance or the building to which we apply it cannot be damaged or consumed by fire, but only that there is diminished liability to consume or be damaged, and consequently that some things are more readily so damaged or consumed than others; and, by an after reflection, that some things which ordinarily are easily set fire to, may be rendered by the adoption of proper means comparatively difficult to set fire to. It will assist us in thinking this subject out, if we first settle clearly in our own minds what we mean by burning. I take a piece of paper and put it in the flame of the lamp I am writing by, and it burns. Any fool can see that, but the wise man sees more in it; he notes as the result of the combustion a black substance, very light compared with the original paper, which, if further exposed to combustion, leaves only a very light ash, and that the operation is accompanied by more or less of flame and pungent, unpleasant smoke; and he recognises that what has taken place is the resolution of the paper into the chemical elements of which it is composed by the action of heat. Nature or art had tied a good many different substances together into a bundle, which had been labelled with the name paper. Fire undid the fastening and set free all the more volatile substances, leaving behind only the residuum of earthy matter which the amount of heat at our command had no power over. As fire, therefore, acts generally by chemically decomposing the compound substance, we can readily gather from the example of our piece of paper that substances will be most readily inflammable which are most largely composed of carbon in combination with large quantities of hydrogen ready to be set free, and the least degree of inflammability will be possessed by those substances which are most largely composed of earths.

Now, suppose we try another experiment. If we steep a piece of the same sort of paper in a solution of alum, (sulphate of alumina and potassa), and on putting it in the flame it now refuses to ignite; it will burn after some time, but without flame, and will not continue to burn unless the external heat is continuously applied. The application of the alum made no chemical change in the paper; copious washings with water would remove it all, and leave only the paper behind; but it acts as a shield and protection by filling every pore, and coating the whole surface with a substance very obstinate in resisting chemical changes by heat. Every particle of paper has by its side and between it and the air a particle of this unburnable alum; the carbon can be heated through the alum, but will not itself burn without contact with atmospheric air. The inflammable gases combined with it may be expelled, and will burn, but the process is slow and very partial, and if the exciting cause is removed the paper will cease to burn.

But, in addition to the chemical action of fire of the kind we have been considering, there is a class of substances on which heat produces an effect of chemical decomposition also, but of a different kind; thus we are all familiar with the effect of heat on carbonate and sulphate of lime, known by us in everyday use as marble, limestone, and gypsum or alabaster. The acid combined in each case with the stone is driven off, it loses its weight and cohesion—in fact every quality for which it has been used in building,—and acquires now very different qualities; but this effect is only produced, as we know, by the continuous application of a very fierce heat, and that stability in a building in the construc-

\* By Mr. James H. Owen, M.A. Read at meeting of the Architectural Association of Ireland, December 18th, 1873. For Part I. see IRISH BUILDER, vol. xiv. (1872) page 304.



tion of which such materials largely enter may be very little affected, while its beauty may be utterly destroyed.

The metals, generally speaking, being not in a state of chemical combination, cannot be chemically decomposed by fire. I say generally speaking, because cast iron is an exception, it being a chemical compound of carbon and iron; and as it is fusible at a white heat, and loses its strength long before the metal begins to run, it is manifestly a material to be used with very great caution. And the same is the case with every metal; there is not one that does not, when heated to even a moderate extent, lose all those qualities for which it has been employed as a building material; and columns of wax and strings of barley-sugar are as trustworthy for sustaining weights as iron at a high temperature. I am not now alluding to the mere change of linear dimensions produced by variation of temperature; this is of course well known to everybody, as being taken advantage of to tighten the tires of wheels and to draw together walls of buildings which have spread. These changes would, under some circumstances, be dangerous to the stability of the structures into which the iron entered, but may generally be neglected by architects, as the range of variation due to ordinary variations of temperature, taken in conjunction with the limited extent of the structure, does not amount to anything of importance. But when a heat is applied that is even very much below what would redden iron, its strength—whether to resist compression, tension, or torsion—is materially impaired, and the destruction of the building may be expected.

This brief examination of the qualities of the materials ordinarily used in building in relation to heat shews that they may be classed roughly in a threefold division—viz., 1st. Those which are combustible but non-conductive, in which class are to be placed all timbers. 2nd. Those which are not combustible, but are ready conductors of heat, and lose all strength and utility as building materials in the presence of heat, in which are comprised the metals used in construction. 3rd. Those substances which are not combustible, are bad conductors of heat, and do not lose their cohesive strength in the presence of heat; in this class are comprised stones, earths, cements. This last class must, however, be again separated into two subdivisions, as there are some stones which are, as has been before stated, chemically affected by heat—notably the compounds of lime and others; indeed the great majority of stones are affected by strong heat when suddenly or irregularly applied, in the same way as thick glass on the sudden application of boiling water. We have, then, in this third class some materials which are thoroughly trustworthy, as the earths and cements, using that term to comprise all mortars and concretes, the materials of which do not comprise uncalcined limestone; and others which are less trustworthy, viz., the stones.

But before we proceed to the practical application of the principles we have been considering, there is a point of great importance which we must first examine and make ourselves thoroughly conversant with—that is, the effect of water on these several materials. The object before us is the saving of property from damage as the result of fire, and the loss is no less if we use such a material as will perhaps resist fire, but fail on the application of water. Now the effect of a strong jet of cold water on cast iron and stone is generally to cause them to split and fly like glass; it will strip walls and ceilings of plaster with marvellous rapidity, and wash out the joints of brickwork, possibly from some chemical action in the lime, but I believe really from the mechanical effect produced by suddenly cooling. Malleable iron would be only liable to distortion by sudden and unequal cooling, but otherwise would not be affected. On timber alone would no effect whatever be produced; the action of water would simply resist the process of combustion, if successfully applied, without doing any special damage of its own.

Now, I think we are in a position to see and know what we must do to produce a fire-proof structure, and to judge of any given design that pretends to that quality, whether that pretension is founded on fact; but there is still another consideration which ought to be taken up before proceeding any further, and that is the intended use of the building—viz., what is to be put in it; what the arrangements connected with its occupation are to be. Is the material to be stored in the building one which in its nature is non-inflammable, or only with difficulty inflammable? Is the operation to be carried on one which involves little or no risk of fire? All these are questions to be ascertained and settled before sitting down to design a building which shall be suitable for the intended purpose, for it is quite clear that with a very inflammable material, such as flax, or cotton, or oils, we have primarily to guard against their being ignited (which is rather matter of precaution in the working of the concern than belonging to the building of it), and also against the effects of their being ignited on the building. But there are many things the risk of igniting which is very small indeed—such as books and papers in densely-packed bundles, casks of wine, &c.; these there would be great difficulty in setting fire to, and it would be sufficient, therefore, to make the building arrangements such as would not bring masses of inflammable material into contact with them. Such things are safe enough if stored in a building composed almost entirely of iron and brick or stone, without floors or sheeting or trimmings of windows or other fittings of deal, as the materials will not burn, except as the result of long-continued effort. There can be no fire to injure the iron used in the construction, and such a building would be safe against anything but deliberate and intentional fire-raising.

But the case where the real difficulty of the architect occurs is when the contents of the building are themselves inflammable, or the operations carried on in it are such as involve the risk of fire on a considerable scale. Now as regards these cases, the type for the architect's imitation is a baker's oven or an iron puddling furnace, the constructive essence of which consists of its being an apartment the walls, ceiling, and floors of which are composed of brick and tiles; in the latter case they use only the best Stourbridge brick set in fire clay, and the 9 inch brick is burned away to 1½ inch thick in about seven days. But the great difficulty is, that this form of structure is limited in its application to dimensions so small as to be quite unsuited to many purposes of modern trade.

And here I would mention, by the way, a recommendation of great importance made by Captain Shaw, of the London Fire Brigade, I believe—viz., that as far as possible the risks should be divided; that, whenever practicable, strong fireproof divisions should be constructed, so as to limit the damage and loss, and also the labour of extinguishing, within the narrowest bounds. Thus, if a store or factory were being constructed, say 100 ft. long and 20 feet broad, there would be doubtless some sacrifice of appearance, and probably of convenience, and not a little additional expense in construction, in dividing it into five parts separated by a good thick wall, and having double sliding-doors on the face of each partition wall; but, in the event of a fire occurring, such a mode of construction would be of enormous advantage in preventing, or at the least considerably delaying, the spread of fire, thus allowing the efforts of the firemen to be concentrated on one spot, and limiting damage by water, &c., to one compartment.

But what is the architect to do who has to design a cotton or flax mill, perhaps 200 ft. long and 40 ft. or 50 ft. broad, and some five or six storeys high, without a single internal wall or anything to act as intermediate supports to floors but pillars, which must be kept as light as possible? I confess that such a problem is not solvable.

(To be continued.)

## ST. STEPHEN'S GREEN, AND OTHER SQUARES.

WITH the opening of a new volume and a new year we once more direct the serious attention of our citizens to the long-continued and shameful monopoly existing in connection with our largest square. Is there really any public spirit living in our midst? and can the Corporation of Dublin plead any excuse for their lack of action in this matter, which calls for an honest effort on their part towards the removal of a patent abuse? St. Stephen's Green was once surrounded by private residences entirely, but for the last thirty years the merchant or trading interest has been gradually forcing its way in this quarter, and driving a business with more or less success. Before the Union several of the houses around the Green were occupied by our native nobility, and by distinguished representatives in our parliament and law courts; and our city, as a whole, had a limited population with open places within a convenient distance. The Liberties and the Coombe were then, as now, pretty well crowded, but with a different race of workers. A race of large and small thriving manufacturers in staple lines of trade afforded employment to hundreds, and these hundreds, when their toil was finished, had suburban spots within easy reach whereon to recreate themselves.

Now from South King-street or Cuffe-street on in a direct line to the Liberties there is a thick-matted population housed in thousands of wretched homes, in back streets, courts, and alleys, and each year is but adding to the misery, wretchedness, and unhealthiness of the quarter we indicate. With few exceptions, London has its free parks and gardens; and in Paris nearly every square, large and small, is open to poor and rich. To be sure we have an extensive Phoenix Park at one end of the city, but, from its situation and distance, it can never meet the wants of the poor who are housed in numbers within a stone's throw of St. Stephen's Green and our other monopolised squares. It is a crying scandal, and we shall ever repeat it until the abuse ceases, that our public squares should be closed in the face of our people, and kept as preserves for a handful of our gentry, their nursemaids, poodles, and perambulators. As a question of public health we look upon this matter, and we say it calls for more than simple protest; for, certain we are, sufficient power exists in the hands of our local authorities, strengthened by the voice of the community, to effect an instant reform. It is not that St. Stephen's Green may be opened or can be opened to the citizens in general, but it must be opened, despite any plea as to vested interests in this direction or that.

Here is a very large square in the heart of the city, shut in the face of the working and industrious classes, who are housed from year's end to year's end in the immediate neighbourhood, suffocated by foul smells, in foul courts and foul dwellings, made foul by the want of proper drainage and ventilation—a fault that can be clearly traced home to the inaction of our Corporate authorities.

St. Stephen's Green, as a healthy lung of the metropolis, has its great uses; but its benefits would be fourfold if opened for the enjoyment of every member of the community who stands in need of exercise for body and mind. On a former occasion we indicated the improvements that could easily be carried out to improve this square, which has never been in the best of times, exclusive as it has been kept, in good condition. Its gardening taste have been of a very poor kind indeed, though there has been ample room for a display of every accessory of modern gardening and ornamentation. Fountains, lakes, rock-works, artistic flower bed, tree, or shrub arrangement, seat accommodation, and suitable retiring places—everything could be provided, for space permits, if the Green were devoted to the purposes of a free park and open garden; but little is provided now, though we would expect that those who have exercised the monopoly so long would have provided for its better keeping.



STONE ROOFED DWELLINGS  
CONNAUGHT

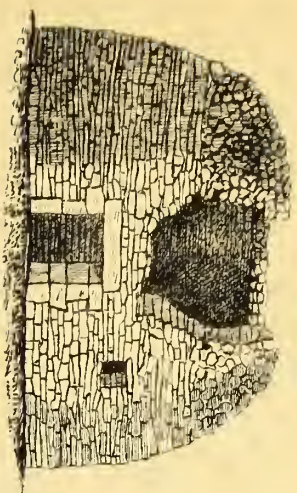


FIG. 1

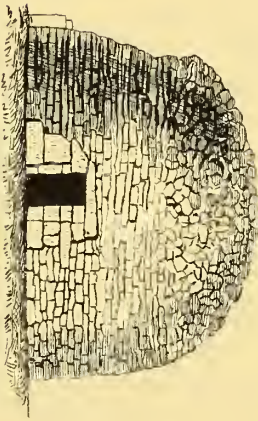


FIG. 2

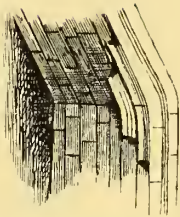


FIG. 5

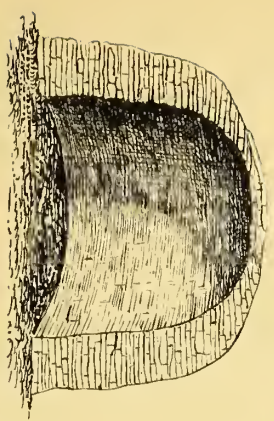


FIG. 3

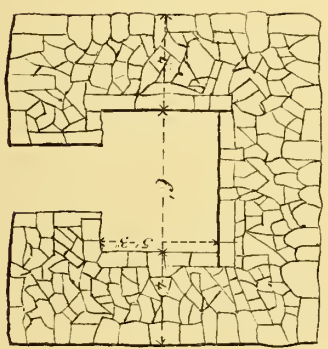


FIG. 4

SPECIMENS OF PRE-HISTORIC MASONRY

FIG. 2



FIG. 1

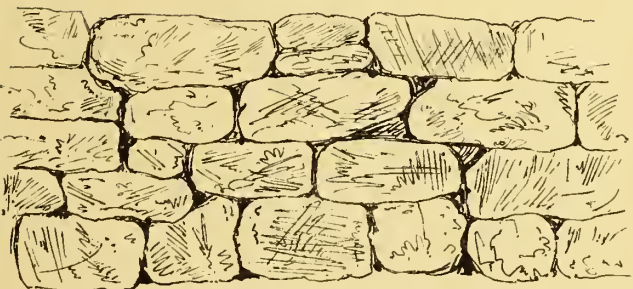


FIG. 4

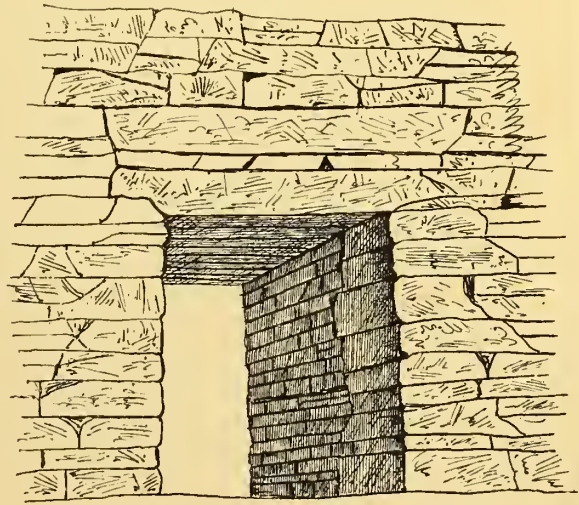
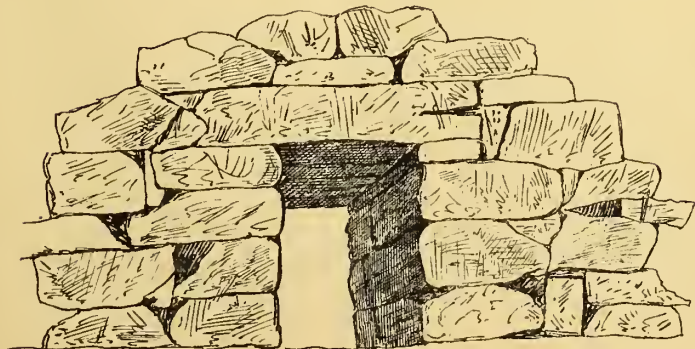


FIG. 3



THE LIBRARY  
OF THE  
UNIVERSITY OF MICHIGAN



With the opening of St. Stephen's Green the other squares must be opened also, and the gentry that live around need not fear that there will be an invasion of "roughs," which is more the creature of their imagination than anything else. Side by side on chairs and seats in the Paris parks and gardens the honest and respectable *ouvrier* will be found with those far above in the social scale, so far as it is represented by wealth or position. There is far too much of the stuck-up and pinchbeck gentility in our midst. "Half sirs" are a little too numerous, and whole gentlemen sparse indeed, for he is not a gentleman who would turn up his nose or look with scorn on a working man, or one obliged to work hard for an honest living. The humblest shopkeeper or mechanic may be a gentleman, and can be one by good breeding and manners; but it is the very worst of bad manners to snuff the air for a supposed stench, that may be more closely connected with the dandified snuffer than the object of his aversion. Honest pride is commendable when exercised in a right direction, but those who scorn those beneath them will live the scorned of many. We advocate no incompatible equality in life, but we advocate generous views and sentiments, and the participation of the poor in the gifts of nature which God intended for the enjoyment of all.

This is why we advocate the opening of our public squares for the free use of the people of this sorely-neglected city. No valid reason has ever, nor can ever, be advanced for keeping them in their present state. As well might the nuisances of our city be defended, or the necessity for zymotic diseases occurring, as to defend the exclusion of our people from the squares of this city. Measures of improvement connected with the public health are always the last thought of, instead of being the first. Railway schemes or other schemes that are calculated to put a lot of money into the pockets of capitalists and lawyers are projected fast enough, for unfortunately in our public bodies there is always a number of interested individuals who care more about their own personal happiness and comfort than about an object so intimately connected with the poor as the preservation of their health. The poor cannot often remove or command two residences, so the opening of public gardens and the preservation of open spaces are matters of great importance to them, as they tend to mitigate much of the gloom and misery that surround them. The question cannot be allowed to rest, and must be agitated until the free opening of our squares becomes an accomplished fact.

#### THE PLANTING OF TREES IN SACKVILLE-STREET.

At a meeting that took place on the 22nd of last month at the premises of Mr. Richard Allen, Lower Sackville-street, it was resolved that the project of planting trees in this wide thoroughfare should be carried out, and that the trees should be placed about 65 ft. apart, and as close to the kerbstone as practicable. That the *Platanus Orientalis*, being the most successful as a free grower in cities, be the tree adopted. That a committee be appointed to wait upon the inhabitants of Sackville-street, and request subscriptions to supplement the sum of £105 granted for the purpose by the Corporation. That Henry J. Allen be appointed honorary secretary, and the Lord Mayor Elect and Mr. Allen be appointed treasurers to the fund.

In respect to planting these trees in Sackville-street, we think that it should not be confined to the one class of trees, but that some of the large evergreen kind, even though somewhat slow growers, should be tried. Holly and evergreen oak grow to a large size, and their appearance in winter is cheerful when the leaves are off our ordinary park and garden trees. The branches of any trees intended for street growth must be lopped off from the tree up to a certain height. There is but one genus of the

*Platanus*, and they are large handsome trees, and are commonly grown in English parks and squares. The *Planes* are chiefly natives of America and the Levant, and the leaves in form resemble those of the sycamore tree or mock plane (*acer pseudo-platanus*). With care, we do not see why the experiment of planting trees in Sackville-street should not be successful, though it can as yet only be looked upon as an experiment.

#### THE NEW CENTRAL RAILWAY SCHEME.

THE late meeting held in the Chamber of Commerce was not a whit more successful than the preceding one held in the Mansion House shortly before. We have said already, and we repeat it again, that Mr. Barry, C.E., has not been lucky in his plans, nor are the chief projectors and supporters of the scheme, for sufficiently weighty reasons. We advocate, and will always advocate, improvements; but we are unable to say that Mr. Barry's scheme, if carried out, could be called an improvement. We cannot but smile at the statement made by Mr. Barry, who says, that his scheme of railway connection could be carried out for £750,000. That sum multiplied three times over would not be sufficient. The first scheme, which was to have a central station over the Liffey, was a most preposterous one; and, if it had been possible to carry it out, it would have utterly disfigured our river. Plans look very well on paper; and, when this new scheme of Mr. Barry's is thoroughly examined, it will be found sadly wanting in many points, and would need to be supplemented by other expensive works. If the scheme was at once accepted, it would be soon found out that it was but the driving of the thin end of the wedge to afford more room for other work which would be introduced immediately after. Some time since there were four rival schemes before the public; and now, we are told, there is but this one. Let it not be imagined that the different railway companies will remain passive spectators if this plan of Mr. Barry's was commenced in earnest, and bid fair to make headway. Mr. Barry is bold enough to say "that all that was wanted to make the railway companies take this matter up was to bring public opinion to bear upon them." But what kind of public opinion? Is it free and honest expression, or opinion begot of pecuniary considerations? No doubt if a number of large capitalists subscribed at once, and if all the railway companies having termini in Dublin were to enter at once into the "swim," each company being propitiated in the usual manner, there might be some chance of the present scheme being carried through somehow. This, however, would not be bringing public opinion to bear upon the matter, for the general public might still be opposed to it, as they are opposed to it.

The truth is, that this new central scheme has not been projected in the interests of the public, but in the interests of a few individuals, whose names we need not specify. The suitable spot has not yet been mapped out, the economical plan has not yet been drawn, and the honest project is still wanting. When the well-digested scheme appears, suitable to the times and the wants of this city, we will not be found laggards in supporting it, and asking our fellow citizens in the interests of the common-weal to do the same.

#### HYDRAULIC RIVETTING.

HYDRAULIC power of late years has been utilised in several directions, and it will be a long period still, we opine, before its economic uses are exhausted. In connection with the Great Eastern City Station, London, there are some interesting operations going on at present well worthy of notice. The following description will serve to illustrate the process:—The two sides of the bridge girder having been erected, a line of rails of the ordinary 4 ft. 8 in. gauge is laid down between

them, and on a strong trolley is placed the hydraulic plant, consisting of the machine, the accumulator, and a steam-engine and boiler to drive the pumps which supply the accumulator and propel the carriage from one part of the girder to the other; and also to lift the "portable rivetter" plates, or anything required, by means of a tall crane affixed to the carriage. When rivetting has to be done the "portable hydraulic rivetter" is suspended by a chain from the jib of the crane, and is thus free to be brought by hand to any required spot. It is connected with the accumulator—the water in which is loaded to a pressure of 1,500 lb. per square inch—by means of long vent copper pipes, which possess sufficient elasticity to conform to the motions of the rivetter. The "rivetter" consists of a small cylinder about 6 in. in diameter, having two steel levers, the one fixed, the other moving with the ram in the cylinder; by these the cupping dies can be approached towards each other. The rivet being put into the hole—uniformly heated in a reverberatory furnace, the waste heat from which raises all the steam required for driving the pumps—one die is placed on its head, and the other die is brought up by the lever attached to the ram at its opposite extremity, where another head is formed there at the same time that the whole rivet is squeezed up tightly in its place. The speed of working is extraordinary; three hundred rivets per hour done by this machine—a good day's work for one gang of rivetters. Moreover, skilled men are not required, as any intelligent labourer can work the apparatus after a very little practice.

The bridge upon which the portable rivetter has been so successfully exerting its gentle influence is well nigh completed; but this will not be the last of its operations even on the Great Eastern's Broad-street Extension Works. The roof of the new and grand station there, which has to be constructed by Sir William Fairbairn, will be rivetted by this process also. Elsewhere, too, the "portable rivetter" is finding favour; and on the large swing bridge across the River Tyne—in the very home of hydraulic power Sir William Armstrong himself, the pioneer of hydraulic engineering, intends, we hear, to apply it. As the bridge itself, involving some 1,600 tons of material, is designed under Sir William's patent, and will be worked by his hydraulic appliances, it will form an exceedingly interesting example of modern engineering skill in this direction.

The "portable rivetter" in operation at the Great Eastern City Station works, is the invention of a young engineer, Mr. Tweddell, and is there doing for the Stockton Forge Company, who have the contract under Messrs. Lucas, the labour of from four to five gangs of rivetters; and is performing its operations in a manner and of a quality which can only be thoroughly realised by witnessing the handiness and the immense pressure exerted by that little article weighing less than 2½ cwt. The system of hydraulic pressure applied to machines of construction has been long since advocated by its inventor in the scientific journals, and recently in a special manner in a paper before the Society of Mechanical Engineers. Hydraulic pressure, too, has for some years been in successful operation for fixed machines. The enormous power which can be concentrated on one point in a machine of comparatively small size by the use of very high initial pressure, some fifteen hundred to two thousand pounds per square inch, very soon caused the system which at its introduction was looked upon with much doubt, to be speedily adopted, and it is difficult now to find any marine-boiler maker without one. The Royal Dockyards, Messrs. Penn, and other leading firms, it is stated, were compelled to abandon hand-work when high pressure steam-rivetting was introduced, and boilers made of very thick plates; again, the hydraulic system is now superseding the steam-rivetting machines with their heavy masonry foundations, and their extravagant expenditure of steam.



# NOTES ON THE ANCIENT ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,  
F.S.A., SCOT.

## ANCIENT IRISH MASONRY—continued.

IN treating of our ancient masonry, I have thought it of importance thus to describe the Rath-chambers, which, it will be admitted, preserve to us the oldest specimens of stone-built work in the British Isles. The character of that work varies of course with locality and material. I have been in many of these chambers, and can from personal observation describe their workmanship. In some examples the walls are built of boulders and surface stones, the interstices packed with spawls; in others, of flat longitudinal stones, carefully laid together; in others, of large blocks of all shapes and sizes, well fitted in their natural forms. Indeed some of the examples present us with specimens of work of admirable character, well bonded and fitted, with some appearance of squaring or dressing on the stones.

In no instance, as far as my enquiries have extended, has mortar or any substitute for it been used in this class of work; this would lead us to infer their great antiquity, even if we had not the evidence already adduced; for it is impossible to conceive, that if they were constructed within the age that building in mortar was current, but that some of them at least would have exhibited cemented masonry, more particularly those examples which we find planned with so much evident care and forethought.

The circular and oval cells are usually domed with stone on the overlaid principle, the section mostly used being a pointed arch, occasionally a semicircle. These underground structures were evidently the models of the Clochans or beehive-shaped stone dwellings, so plentiful in the south and west. The doorways or entrances to the passages connecting the chambers are sometimes formed of three stones, one for each jamb, and the lintel; in other cases the jambs are built of the ordinary-sized stones, rough-squared on the angles; in nearly all cases the jambs batter inwards towards the top, as in the opes of our Round Towers and Primitive Churches. Specimens of two classes of masonry from the Rath-crypts are shewn on lithograph.

The excellence of the masonry in these structures was remarked by the celebrated Irish antiquary and genealogist, Donald Mac Firbis. In his *Book of Genealogies*, compiled in the year 1650, he remarks as follows:—"Such is the stability of the old buildings, that there are immense royal raths (or palaces) and forts (Lios) throughout Erin, in which there are numerous hewn and polished stones, and cellars and apartments under ground, within their walls; such as there are in *Rath Maoileatha*, in Castle Connor, and in Bally O'Dowda, in Tireragh, on the banks of the Moy. There are *nine smooth stone cellars* under the walls of this rath; I have been inside it, and I think it is one of the most ancient raths in Erin."—(O'Curry; *MS. Mat. Ir. Hist.*, p. 223.)

While it is certain that the construction of earth and stone-walled Rathes took place simultaneously, it is highly probable that the former, in point of age, had the precedence, and that our Cahirs and Cashels are of a somewhat later date. The high walled structures of this class, as Staigue, Cahirgal, and Aileach (already described in my opening chapter), must certainly be so considered. The excellence of their masonry, the original height to which the walling was carried, the arrangements for defence, the construction of the numerous flights of steps for the convenience of providing quick relays of defenders for the parapets, evidence a decided advance both in defensive architecture and in the art of masonic construction.

Dr. Petrie, in his *Memoir of Aileach*, to be found in the Ord. Sur. of Londonderry, has shewn beyond doubt that the present ruined

fortress is the original Cathair of Aileach Fririn, which was dismantled in A.D. 1101. It is curious that the origin and builders of this place are set forth in an ancient Irish poem called the *Dinnseanchus*, a topographical work of high authority. The passage is curious, and worth preserving. The poet, after describing the causes which led to the erection of the great northern fortress, thus proceeds:—

"Hereupon were brought two good men, in art expert—  
Garvan and Imcheall—to the hoary-headed,  
grave Eochy:  
And he told these mild slender people to erect a rath,  
*That should be a rath of beauteous circles—the best in Erin.*  
Neid, the son of Indai, of severe mind, said to them:—  
'Let not the goodly hosts of the world erect a work like Aileach.'  
*Active Garvan proceeded to work with art and chip;*  
*Imcheall placed scaffolding of wood around the house,*  
*And finished the erecting of the Dangan of Aileach, through a laborious process."*  
—(Ord. Sur. L'derry, p. 225.)

It would be interesting could we settle the age of this building. The poem states that it was erected by the Tuath-de-Danans, under their king, Roehy Ollahir, or the Dagda, whose reign is stated to have commenced in A.M. 2804; and we find that the names and dates of a number of kings of Ulster who reigned at Aileach are given in our annals from the above period down to A.D. 358. The very early chronology of these annals, however, must be looked on as unreliable; the most accurate and careful of our early historical writers, Tigernach, whose death is recorded at A.D. 1088, informs us that "all the records of the Scots before the time of Cinbaeth are uncertain,"—this would be 305 B.C. This statement has been very generally received by all judicious students of Irish history and archaeology; we must, therefore, be content with the fact, that Aileach is of prehistoric antiquity, and was probably erected some centuries before the Christian era.

Respecting Staigue, Caher-Daniel, and Ballycarberry, or, as it is locally called, Cahergal, we have not a single historic notice, as far as I have been able to enquire; but that they are of the same age as Aileach, there can be no doubt, the arrangements, mode of construction, and dimensions being almost identical.

Of an equally remote antiquity we should class those structures usually termed Clochan, a word the etymology of which is rather uncertain. Cloch signifies a stone; some suppose it to be a compound term from *Cloch*, a stone, and *Ain*, a circle, denoting the usual form of these stone-built dwellings; others suppose that *an* here is the ordinary diminutive. These structures are most generally found in the west of the counties of Cork and Kerry, on the coasts of Clare and Galway, and as far north as Donegal; and more particularly in the islands along these shores. In Kerry they are numerous, particularly in the barony of Coreaguiney; the late Mr. Richard Hitchcock, who had thoroughly investigated the antiquities of this barony, has stated that he had counted the number of 218 Cloghans or beehive-shaped stone houses in the course of his investigations in that district.

The Cloghan, though generally circular on plan, has been found of various figures—sometimes oval, square, or rectangular; the late Mr. Windele informed me that he had met one the ground plan of which was a quarter-circle, and another a *vesica piscis*, or somewhat like the form of the human eye. They are of various dimensions, but the circular ones seldom exceed 16 ft. in diameter, and the rectangular or oval, 21 ft. by 14 ft. The masonry varies from 4 ft. to 9 ft. thick at the base, rises vertical or slightly sloping to a height of from 3 ft. to 5 ft., and from

thence closes inward in the form of a beehive, and on the overlaid principle, the dome thinning towards the apex. The door-opes are usually of small size, seldom exceeding 4 ft. in height and 3 ft. wide, the jambs being composed of large blocks and the lintel a massive slab of stone. No rule was observed in placing the doorways, and in some instances two have been found in one Cloghan, at opposite points. In several instances the interior will be found square or rectangular on plan, while the exterior is circular or oval; in a few instances an ope for a window has been noticed.

The masonry varies with locality and material, but is universally rubble-work of various degrees of excellence; some examples are of the rudest character, others of excellent workmanship, the stones of large size well bonded and fitted. The domed roofs were usually carefully constructed, and many have been found water-tight to this day. The masonry seldom shews evidence of tool work, the stones being rarely dressed, except for the opes.

Dr. Petrie's description of the Cloghan on Lough Currane will serve as the type of this class of structure, though it is of unusually large dimensions:—"The next example presents a view of a house of one of the early saints of Ireland, and exhibits the characteristics of the Cyclopean style more than the preceding one, the stones being mostly of enormous size. It is the house of St. Finan Cam, who flourished in the sixth century, and is situated on Church Island in Lough Lee or Curraun Lough, on the boundary of the baronies of Iveragh and Dunkerrin, in the County of Kerry, and four miles to the north of Derrynane Abbey, in Irish Doire Fhionain, which derives its name from that saint. This structure, though nearly circular on the outside, is quadrangular on the inside, and measures sixteen feet six inches in length from north to south, and fifteen feet one inch from east to west, and the wall is seven feet thick at the base, and at present but nine feet nine inches in height; the doorway is on the north side, and measures on the outside four feet three inches in height, and in width two feet nine inches at the top, and three feet at bottom. There are three stones forming the covering of this doorway, of which the external one is five feet eight inches in length, one foot four inches in height, and one foot eight inches in breadth, and the internal one is five feet two inches in length, and two feet nine inches in breadth."—(*Round Towers*, p. 129.)

The Arran Islands, at the entrance of the bay of Galway, are remarkable for their megalithic remains; pillar-stones, cromlechs, giant-graves, stone circles, cloghans, cashels, are numerous. In truth, it would appear that at some remote period a people remarkable for their skill as stone-workers occupied these remote islands, and that in considerable numbers. The stone-built dwellings are remarkable for their number and variety; an account of several examples has been given by Mr. G. H. Kinahan, F.R.G.S.I., in a paper read before the Royal Irish Academy on December 10th, 1866, and which has been published in their *Proceedings*. These curious structures are worth a careful study; in plan and arrangement they are evidently taken from the underground Rath-chambers, and are of various forms—square, rectangular, oval, and circular; they are found single and in groups; some are constructed entirely of stone, others lined with stone inside and backed with earth, reminding us of the chambers of tumuli. One of this class is described by Mr. Kinahan as having three apartments connected together; the external is an oval of 15 ft. in length by 8 ft. in breadth, from which a doorway of 3 ft. square leads to a circular one of 12 ft. in diameter; from thence is a passage running at right angles, 15 ft. long, 4 ft. wide, and 3 ft. high, and leading into a circular chamber, also 12 ft. in diameter.—(*Proc. Roy. Ir. Acad.*, vol. x., p. 27.)

Fig. 1 on lithograph is a view of a Cloghan at Bally-na-sean, or Inishmore, one of the



Arran Islands; it is circular externally but rectangular internally, being 18 ft. in length, 14 ft. in breadth, and 10 ft. in height to the original soffit of dome. It has two doorways, one at the north side, the other at the south; this was evidently intended to meet the exigencies of the weather; the latter is but 3 ft. in height and 3 ft. in width; it is carefully built of large blocks of dressed stone, and lintelled with the same material; the north door is of still smaller dimensions, being but 2 ft. 5 in. by 2 ft. This example has the novelty of a window at the south side; it is an aperture of 12 in. square, and its sill is 3 ft. from the ground. A large portion of the domical roof has fallen in.

Fig. 2 on lithograph is the north view of one of a similar type from the same locality; it also has a north and south entrance, and an ope for lighting at the south-west.

Fig. 3 shews a section of a Cloghan at Cragballywee, on the middle island of the Arran group (Innishmaan); it shews the construction of these curious buildings. Fig. 4 is a plan of one nearly square, the chamber being but 6 ft. by 5 ft. 3 in., the walls 4 ft. thick; the entrance was at the south side, 3 ft. in height and 2 ft. 6 in. wide. The walls were rectangular to the height of 3 ft., and from thence curved inwards, the apex being closed by three flags; height to soffit, 8 ft.

This last example is from Ardoilean, or High Island, off the coast of Galway, the antiquities of which have also been described by Mr. Kinahan in a paper read before the Royal Irish Academy on November 8th, 1869, and which has been published in their *Proceedings*, vol. x., p. 551. A very interesting example of this class on the same island he describes as—"A rectangular clochan, seven feet wide (north and south), by eight feet long, with walls five feet thick. This building also has only one aperture into it—a doorway in the east wall. The doorway is peculiar, as it narrows from three feet wide on the outside of the wall, to one and three-quarters feet wide at the floor, and one and a-half wide at the top, on the inside of the wall. The outside of this clochan is in a similar deplorable condition to that of the last described; fortunately however the interior has been spared by the barbarians who have ruined the rest of the settlement, and displays a beautifully finished chamber, in good proportions, coved in on all sides from the floor to the roof, a height of over nine feet, the apex being covered by three flags placed in steps. . . . The sketch does not shew the full beauty of the building, as its finish was similar to that of many of the interiors of the clochans in the County Kerry, each stone fitting into or lying evenly on its fellow, and all joints being so close that a knife could scarcely be inserted between the stones. Moreover all the angles are symmetrical, and curve evenly from the floor to the apex of the roof."—(*Ibid.*, p. 553.)

I have been anxious to give an accurate account of these ancient structures from the personal examinations of trustworthy authorities, as I believe them to be, next to the Cashels, the oldest stone-built structures above ground in Ireland. That the old Gaedhelic builders knew how to spring a circular dome from a square or rectangular substructure, is quite evident from an examination of the Cloghans on the Arran and other islands on our western coasts, as well as on the mainland; one of their modes of doing so is shewn by fig. 5 on lithograph. Here we have a simple but effective form of a pendentive, corbeled from the angle to carry the domical roof. All the figures on lithograph are taken from the illustrations to Mr. Kinahan's papers.

I have placed the Cloghans among the stone-works of the pre-Christian period, and I conceive I am warranted in doing so; they are structures of so peculiar a type, their masonry massive, eyelopean, uncemented, and presenting no feature that would connect them with Christianity. As I have already stated, and I think there can be no question of it, they are derived from the underground

crypts of our Raths, as they are identical in plan and section; every variety found underground being also found overground. It is true that to a few of them the names of early saints have become attached, but this fact has little significance; they may have been used by some of our primitive ascetics as penitential cells, and the fact has been preserved in tradition. As to their age, from the immense thickness of their masonry compared with the size of the buildings, and their peculiar construction, they may be over 2,000 years old, and many of them, if uninjured by violence, may last many centuries more. I do not mean to say that structures of a somewhat similar character may not have been built in early Christian times, but the original type and the most important of the existing examples are decidedly of the pagan era.

Fig. 1, on right side of lithograph, is a sketch of boulder masonry from the walls of a Rath-chamber at Kilmichael, County Cork; fig. 2 is taken from the interior of a Rath near Kilerrea, in the same county; fig. 3 shews the entrance gateway of Staigue-fort, County Kerry, previously described; the masonry about this gateway is somewhat of more regular character than the general work. The builder appeared to have been doubtful of the strength of the front lintel, as we find he placed a second above it. Fig. 4 is a sketch of the entrance to the Cloghan named after St. Finnan Cam, already mentioned. Both of these doorways are drawn on a scale of half an inch to the foot.

## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

NONDESCRIPT-QUAY—(second visit).

OUR eiccone, faithful to his promise, met us at the appointed place and time, and thus resumed his recollections and reflections:—

"Where that cast-iron elliptic bridge stands, sir, there was a ferry formerly, the property of the old Corporation. Some enterprising speculators conceived the idea that a toll-bridge for foot passengers would turn out a paying speculation, more particularly because it would afford a short cut to the denizens of the north to visit old Crow-street Theatre, which early in the present century was the chief Theatre Royal in the city. Alderman Beresford and William Walsh purchased the tolls of the ferry, and erected the bridge that we now see at their own cost, which amounted, it is said by some authorities, to £3,000. The bridge is light and somewhat ornamental, and when first erected it was looked upon as a 'thing of beauty.' It has certainly been a convenience to a degree, but I do not think it turned out the paying speculation that it was thought it would. As a toll-bridge, however, it should have ceased long since, and should have been freed years ago for the benefit of the citizens. There is not much of historic interest to relate in connection with this bridge. It was erected about the year 1816, and received the name of Wellington Bridge, but up to the present it has been known as the 'Metal Bridge.' Confined to foot passengers alone, there is but little in the shape of burdens pass over it, save what a man may carry. Several years ago two tinkers with their budgets hurriedly arrived at the toll-bar, and one of them accosted the toll-man—'Do you charge anything, mister, for luggage, or for what a man may carry over on his back?' Having been informed there was no extra charge for luggage over the halfpenny toll, the tinker said to his fellow-craftsman, 'Get up on my back, Jim.' The toll-man looked on in mute astonishment while one tinker mounted the other's back. Dropping the copper into the palm of the toll-man's hand, tinker number one carried tinker number two hurriedly over, despite the too late remonstrances of the custodians of the gates, who had other passengers to attend to.

"At the corner of Broker-street there formerly existed a well-known tavern called 'The Bunch of Grapes.' The original tavern was in the cellar, but nearly thirty years since a whiskey palace shewed its front on 'The Walk.' No. 1 or 1½ was once more occupied by a furrier and plumasier, and one Quin carried on business for some years there. Turbett continues in trade, if not in name, in the same line still. At the period I am speaking of the numbers on 'The Walk' were pushed on a figure—what was formerly known as No. 2 is now No. 3, and so on; the numbers advanced a unit from Broker-street to the Mall.

"I have already told you that J. S. Folds, the first printer of the *Dublin Penny Journal*, lived at No. 5 after his removal from Great Sand-street. This was about the year 1833, the first numbers of the journal being published in his former premises. Twenty-nine issues of the periodical were printed at 56 Great Sand-street, and twenty-four on 'The Walk' after his removal. The publication then passed into the hands of Philip Dixon Hardy, of Cecilia-street, in whose care it continued till it expired, about 1836. No. 5, now No. 6, was a rather historical printing office during the management of Folds, and was visited by many of our dead and still living *litterati*, several of whose works were printed here. It was at one period one of the largest and most respectable printing-offices in the city. An alarming fire broke out in Folds's printing premises on new year's night of 1841, by which they were entirely reduced to ashes. Many rumours, sir, were circulated as to the origin of the fire, which was put down to the act of an incendiary. There were several Scotch and English compositors employed, brought across the Channel to take the place of the society hands who had struck work some few months previously, and the fire was attempted to be attributed to their instigation. It was said that a well-known rough, a drayman of the name of H——y belonging to the 'Plots,' was bribed to set Folds's premises on fire; but I believe, sir, the true cause was owing to a stove whose fire was incautiously raked out on the boards of the flooring at leaving-off time. At the time of the fire the insurance had lapsed, through some dispute with the agents. Folds sought compensation for malicious burning from the city, and at a trial in the Queen's Bench the jury awarded him £2,000 damages. A short time previous to the fire Folds had an offer of £8,000 for the good-will of his business from a London firm, but he wanted £10,000. The sheets of Lever's 'Charles O'Malley' suffered to a large extent by the fire, and perhaps you remember the novelist's epistle to G. P. R. James, his English brother novelist and friend—

'With a scrap of note-paper just saved from the flames, I sit down to write to you, my dear James.'

It was in 1845, if I remember aright, the *Dublin Times* newspaper, which I mentioned on our former visit, was started. This paper was begun by J. S. Folds in conjunction with a few others, but after a few numbers Folds's partners deserted him. The following year the printer levanted to America, and was adjudged a bankrupt. After his disappearance several untrue charges as to money transactions were made against poor Folds, but I believe they were all false, and were preferred to screen the doings of others. The concern passed into the law courts, and being put up for sale it was purchased as a speculation by the late Irish novelist, LeFanu, by money advanced by M——h, a solicitor. The successor to Folds in the printing business was put into the concern by the novelist; but, Bull having died, after a short interval the solicitor took the concern into his own hands, as his advance had remained unpaid. Drought succeeded as the printer at the historic No. 5-6. Here for some time the *Warder* and *Protestant Guardian* were published. The former was a lively journal at the time, and contained the 'Terry O'Driscoll' letters, dated from Stonybatler. The 'Stonybatler' idea, sir, had a much older



origin than its use in the *Warder*, having been first used in Michael Staunton's *Register* many years before. In the printing office on 'The Walk' during the 'Young Ireland' régime several of the rebellious papers were printed with a vigor; here Mitchell's among the rest.

"No. 7 (the old number) was the premises of William Shaw, printer and stationer, an old-established concern. William Shaw had four sons, of whom one at least figured somewhat prominently for a time in this city. Henry was the publisher of the *Commercial Journal* for some years on the quay below, but passed over to London some years since. William Shaw, jun., settled in Liverpool, and, with Henry here (in 1839), brought out for a short time *Shaw Brothers' Monthly Magazine*. Lorenzo was a trader in Lower Gardiner-street, and George became an alumni of T.C.D., like yourself. William Shaw's eldest daughter married a clergyman, the editor of one of our morning papers. These matters, sir, are too recent to enter upon more fully at present.

"At No. 10, one Maclean for some time carried on the once lucrative business of a musicseller; and at 11 and 12 was established the 'Royal Circus,' a furniture ware-room of large extent. For several years in your own memory it was Young and Groves's, but the business is now carried on by Lawlor, Hill, and Co. A number of wine stores existed for many years in the houses further on.

"At No. 15, for several years dating back before 1835, lived the late Walter Doolin, the well-known builder, of Westland-row. Mr. Doolin commenced life as a carpenter, and had premises at 64½ Tyrone-street as far back as 1818. One of his sons is still in our midst in the building and stone-carving line. Our old builder's premises on 'The Walk' is now a wine and porter bottling stores.

"No. 18, half a century ago was the room-paper factory of a somewhat renowned character who was known by the name of 'Happy Wood.' His stained paper-hangings were considered far in advance of his brethren in the craft. His honesty, some were bold enough to assert, could not be vouched for with safety. Some busybodies whispered that he blinked the Government supervisors by saving them the trouble of stamping a goodly portion of his famed manufacture by stamping it himself with hieroglyphics of his own design in his top garret. As the duty was a shilling on every twelve yards, 'Happy Wood,' who did a good trade, had a reason for feeling happy if the insinuations made against him were true. 'Happy Wood' previously carried on business in Polly-street. Since the flight of Wood, No. 18 has been in a ruinous state. The 'wiggers,' however, have recently been giving its face a blnsh.

"No. 19 had many tenants from time to time. It was occupied as a dancing academy, and again as a picture gallery by Watkins. Subsequently and for many years it was occupied by Pasley, cabinetmaker, which trade is still carried on by Walsh and Son.

"No. 20 was as notable a house at one period as Sir Philip Crampton's pear-tree house in Merriion-square, from the fact of a fig-tree being trained up its front, which yearly used to bear fruit. The fruit, however, were never worth a 'fig,' as they never came to perfection. The tree, when the leaves were green, gave a feature to the old house, which was occupied for several years by Isaac English, a merchant. The Fig-Tree House is now Carson's Paint agency, but the tree, like the 'Last Rose of Summer,' is withered and gone.

"No. 23, now the office of the *Farmers' Gazette*, was occupied at different periods within the present century by merchants, and the story of the *Farmers' Gazette* scarcely belongs to the past as an old memory.

"Fishbourne's receiving office was once a wholesale fancy warehouse, and afterwards the saddlery and harness premises of the father of our veterinary surgeon, Ferguson.

"A printing office, kept by a namesake of yours, existed for several years at 26.

"The old premises of *Carrick's Morning*

*Post*, No. 29, a very old printing establishment, is now converted into offices, as you may see. It was a busy hive for several years within the last half-century, but after the extinction of the journal the house decayed, though the founder's sons continued the printing business for a number of years. The famous Carlisle Tavern, of oyster celebrity, where many literary and social reunions were held and mystical committees sat, is now the 'Alexandra,' a fashionable restaurant.

"Passing the lane, the most noted house on this end of 'The Walk' for some years was Nolan's 'Noah's Ark,' No. 33, but formerly No. 32. James Joseph Nolan was a somewhat eccentric character, and his fancy warehouse of toys and birds excited the fancy of citizens as well as country cousins. Parrots, humming-birds, cockatoos, canaries, and various oriental species, with monkeys, squirrels, white mice, and divers fancy pets and pests, were to be seen in cages in his windows and showrooms. The Noah's Ark on 'The Walk' echoes no more with the songs of birds or the chatter of monkeys or parrots. The Ark is converted into a receiving-house of another kind.

"The Walk' witnessed, sir, a great deal of literary activity from the period of the establishment of *Carrick's Morning Post* down to 1848, and perhaps a few years longer; but of the host of poets, artists, and journalists I knew in connection with this old quarter between the years 1830 and 1850, but very few remain. Till within the last decade a goodly few of those whom I knew for upwards of half a century before were still living; but death has been unsparing, and has wiped them out of sight though not out of recollection. Whatever may be the future of Nondescript-quay, by its former name it will live in the memory of our citizens, and its associations will be treasured up and transmitted from father to son for generations to come. Modern street and shop-front architecture has not as yet done much for 'The Walk,' and perhaps 'tis as well, until the monkey styles are rooted out and trampled down. The good old red-brick front and tenacious mortar are preferable to the vile, half-burnt clods of earth and guttery mortar of to-day. Paper, lath, and villanous plaster, rotten stone and wretched rubbishy compo of various kinds, are in request now, and as a consequence our homes are often our living and dead coffins. Peter de la Roche gave to the world a sixth order of architecture. Why should there not be a seventh, the 'Sepulchral Order'—a sort of composite, the conception of the 'jerry builder' and the jovial undertaker? I am sick at heart, sir,—I am sick at heart, and I would fain take my farewell of life before I live to witness worse curses born to plague and blast the world. I may not see 'The Walk' often again before this mortal coil is shuffled off, so I will seize an opportunity of bidding it a kindly farewell. Ah, me!"

Thus ended our second visit to Nondescript-quay, whose memories appeared to excite deep feelings in the heart of the "Oldest Inhabitant."

## THE ARCHITECTURAL ASSOCIATION OF IRELAND.

An ordinary general meeting was held on Thursday evening, the 18th ult.:

The President in the chair.

Amongst those present were—J. H. Owen, M.A.; E. Clarke, R. Browne, W. Fennell, W. Doolin, J. Knox, J. Duff, J. Neil, R. S. Swan, C. H. Brien, J. H. Longfield, D. J. Freeman, J. L. Robinson, &c.

The minutes of the previous meeting were read and confirmed.

Mr. Charles La Nanze was balloted for and elected a member.

Mr. James H. Owen read a paper on "Fire-proof Building," which we print on another page.

Mr. J. L. Robinson (hon. sec.), in proposing a vote of thanks to Mr. Owen, said

that Captain Shaw, of the London Fire Brigade, has repeatedly stated that strong breastsummers of timber are far preferable to iron girders, as fire, even of the fiercest description, takes a long time to burn through a beam of timber. On that account he (Mr. Robinson) was opposed to the present custom of bolting deals together with 1 in. space between them to form breastsummers, instead of using balk timber, as such made beams would be consumed in a very short time, and, the support being removed, the walls should fall in. With regard to the strength of concrete, he considered that the present system of testing the strength of materials was very unreliable, as the pieces experimented upon were invariably small, and prepared with an amount of care that it would be useless to look for where large quantities are used. He concluded by proposing a vote of thanks to Mr. Owen.

Mr. W. G. Doolin, in seconding the vote of thanks, said that a number of experiments as to the strength of concrete have been made by Mr. Grant, in connection with the sewerage of London, which, as far as he was aware, are unpublished. He thought concrete in flooring should be considered as a beam or girder, and not as an arch.

The President, in putting the motion, said that the great advantage of concrete in flooring is, that there can be no thrust. He would like to use brick piers and quoins between them; and, instead of using tiles, as suggested by Mr. Owen, he would use 4½ in. of brickwork, and back up with concrete.

Mr. Owen said that it must not be forgotten that, whilst it looks like an arch, it must be considered a slab, which is a matter of great importance, as an arch, no matter how built or constructed, must spread; the only possible way of counteracting which is by a series of tie-bars or by reversing the arches at the end of the building, as a buttress—a clumsy method, in which girders must be used. One important point must not be overlooked: like a human being, concrete is weakest at the time of its birth, but increases rapidly in strength, and becomes as stronger every day. In old buildings we see tower and other vaults composed of small stones on edge, and filled in with mortar, which can be looked on as nothing but concrete. He did not pretend that he had exhausted the subject, which is yet in its infancy; but, although very much in its favour, it must not be forgotten that the men who have most used it have given it up as a bad job, as it has been proved that after all old-fashioned stone with timber beams has in fire proved the more reliable building.

## CORRESPONDENCE.

### ARCHITECTS AND BUILDERS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—There was a somewhat lively letter in your last issue, by "An Architect." Among other matters he advises architects to let builders alone—a very good advice, so long as builders mind their own business. "An Architect" says he has uniformly received kind dealings at the hands of builders, which is a fortunate matter, at least so far as he is concerned. If your article on "Builders' Architecture" suggested his letter—which, no doubt, it did—it has not been written in vain. As I understand your remarks, they were not solely directed against builders interfering in architects' work, but in condemnation of some building abuses for several years rife in our midst. Architects should not be blowing hot and cold with the one breath, and, as a body, they should shew some unity of purpose. No respectable architect believes all builders are rogues, and that it is necessary to be "down" upon them to make them do their duty; but there are many builders, and respectable ones too, who believe that a great number of our architects are little less than rogues, and that few among them are above receiving "tips" to pass inferior work. I have had some experience of architects in my time, and their intelligence did not make a favourable impression on me, or on others with whom they had contact. Their designs looked very pretty on paper, and a good deal of labour was used to give effect; but as the work proceeded the builder and the workmen



had good cause to curse the architect and his designs. I have one or two instances in my mind's eye where floors and landings had to be lowered, stairs altered for lack of head room, partitions and roofs pulled down, and a number of borrowed lights introduced to illuminate the darkness of certain corridors and bedrooms. This was the work of some of the members of our Royal Institute, who pride themselves on their ability, and who have recently been lecturing to young men of their profession on the principles of design. Such architects, sir, as these must be civil to builders, big and little, for the builder, through his experienced foreman and workmen, has often to pull them through their difficulties. Bad and unprincipled architects open the way to bad materials and workmanship.

I know of cases of architects being their own builders; and, without being personal, perhaps "An Architect" does a little building on his own account for the benefit of his relatives, if he has any belonging to the building profession. He is tender of hurting the feelings of builders; but if my father or son were a builder and I a practising architect who knew my business, I would, in the interest of my order, make both of them do their duty to their clients, if I had had any professional contact with their contracts. It is, of course, a bad fault for architects to contract the habit of abusing builders; but if a "scamp" is met with he should be exposed and punished besides for his attempt to palm off inferior workmanship and materials. An architect who accepts a bribe from an unprincipled builder is as great a thief as the builder, and both deserve imprisonment without the option of paying a fine.

For respectable builders I have the greatest admiration, and also for respectable architects; I agree, however, with the opinions expressed in "Builders' Architecture," and I believe the object of the writer was to benefit both the architectural and building professions, and lead to salutary reform. Into other matters in "An Architect's" letter I have not now time to enter, but may on another occasion.—Yours, **GOBAN SEER.**

We forwarded a proof of the above to the writer of the letter in our last, signed "An Architect," and it has elicited the following reply:—

SIR,—As you have been kind enough to send me the letter of "Goban Seer," with a view to ascertaining my views on it, I suppose I ought to say something. There is so slight a difference between him and me, that, perhaps the least said the better.

In one paragraph he hints that perhaps I do a little building on my own account, or am related to a builder; this is not the fact. I am not related to either builder or architect, that I am aware of; and I never had the most remote personal or collateral interest in any builder's work or materials over and above that which I can honestly have as a professional man, *acting strictly as such.*

I am not an "eminent architect." One of my shop-fronts has never been described, either by myself or by anybody else, in the daily papers. My day is yet to come. I may even hope to be a member of the Royal Institute, if it should be in existence when I become "eminent." By that time I hope to avoid those blunders to which "Goban Seer" refers.

As you saw by my P.S., I am related to an engineer, and am anxious to emulate the example of some of my brethren by adopting the C. E. on my new door-plate, if you think I am entitled (by such qualification as I have mentioned) to do so, I should like to have the views of "Goban Seer" on the point.—Yours, **AN ARCHITECT.**

## ARCHITECTURE OF CHIMNEYS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—In the *Times* of the 24th inst., under the head of "Architecture of Chimneys," there is an account of an adjourned enquiry before the coroner on the bodies of persons who were killed by the falling of a chimney in Sheffield during the gale that swept over that town on the 16th inst. Mr. T. H. Jenkinson, architect, who was a witness at the enquiry, stated that he made an examination during a very severe gale, and found the oscillation of the chimney amounted to two inches each way. He did not think there was any danger; considering the chimney tapered about one foot, it would have had to oscillate six inches to bring it to the perpendicular, &c.

It would have been satisfactory to my mind if Mr. Jenkinson had stated the method he adopted during a severe gale to ascertain the oscillation of the chimney. This is the point I wish to direct attention to, with a view of, perhaps, gaining information from some of your professional readers, as I

do not know how the measure of oscillation under such circumstances could be ascertained. In a calm, were oscillation then likely, I can understand its being done, or a much less amount than two inches being measured; but I do not know how it ought to be done in a storm. Could instruments be placed in a house, and observations taken through a window, the observer should be very steady and composed when all around was "rocking"—Yours, **C. E.**  
December 27th 1873.

## ERRORS IN QUANTITIES.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Perhaps you, or some of your numerous subscribers, will kindly inform me, if, in case of "surveyors" taking out quantities for works for builders to tender on, they omit or neglect to include all the works required to be done as by plans, &c., and a builder accepting the contract on such defective bills of quantities—in case there is no special agreement to the contrary,—can the builder successfully sue the surveyor for the deficiency?—Yours, **A NORTHERN SUBSCRIBER.**

[The builder may sue the surveyor, but whether he will be successful in his suit is another matter. Respectable and experienced builders who know their business are cautious of new or strange hands, but on surveyors of established repute and character repose the utmost confidence, and they are faithfully served. The builder who suffers a grievous loss through the neglect or incompetence of a surveyor ought to recover. We invite some of our subscribers to state their experience in the matter, for the information of our correspondent and others.]

## ASSISTANT COUNTY SURVEYORS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Another year is rapidly passing away, and still no effort made by those parties who inaugurated the Assistant County Surveyors' Association, at the Verdon Hotel, about two years ago! I had great hopes at the time when Lord Hartington and Sir John Gray countenanced the moderate demands then made, and listened attentively to the arguments put forth by Mr. Cochrane, Mr. Chappell, &c., that ere this our just claims and many grievances would be redressed.

I trust, sir, you will again recur to this subject, and urge upon those parties interested to revise the association, and, if necessary, to assume the "strike" hinted at by you in a former paper.

'Tis really disheartening to witness an active, intelligent body of men treated as those are, while in every other department in the land "the labourer is thought worthy of his hire," while the Deputy Surveyor's Salary, after paying for conveyances, postage, &c., leaves but a pauper margin for the necessary wants of life. **CIVIL ENGINEER.**

Gore's Bridge, Kilkenny.  
25th December, 1873.

## THE "ALLIANCE" GAS BILL AND ITS PROVISIONS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—In the *Irish Echo* of the 27th instant appears a copy of a bill to be called the "Alliance and Dublin Gas Act, 1874," and which the Gas Company intend passing through Parliament in the coming session.

Some of the provisions of this bill are worthy of the serious attention of the ratepayers and gas consumers of Dublin, &c. Section 6 provides that all gas supplied from 1st July, 1874, shall be of 16-candle power, and the place for testing that power about 1,000 yards distant from the works. The burners (all of which they undertake by secs. 8, 9 to supply *gratis* to *bona fide* consumers, and to the public street lamps) to consume 5 cubic feet each per hour (the tester ought to be able to examine it by its own light), and the price to be 5s. 6d. per 1,000 cubic feet (sec. 10). Taking the average number of hours that our public lamps are lighted as being 10, the consumption of gas in each lamp would be 50 cubic feet per night, or 18,250 cubic feet per annum, which at 5s. 6d. per 1,000, would amount to £5 0s. 4½d.; the present cost of lighting all the city lamps being £7,500 (about £1 11s. per lamp). Private consumers can take a lesson from this as to the probable amount of their future quarterly gas bills.

In London, the Metropolitan Board of Works has established several gas-testing stations, and the

Board of Trade has appointed *scientific men* of high repute as gas referees, whose duty it is to hear complaints, and decide if the gas is as good as it ought to be or not. Under this bill no individual consumer can complain of any overcharge inflicted on him by the Gas Company, sec. 13 *g* directing that a requisition signed by a body of consumers whose united gas ren. all shall not be less in the aggregate than £2,000 yearly shall be presented to the Corporation, who, on being indemnified against costs, can take action for them.

The tone of perfect confidence with which the Corporation is mentioned throughout the bill is rather remarkable. The ratepayers and gas consumers would do well in opposing this bill, and demanding that the gas meters used by private consumers in the entire gas district shall be examined by a competent gas-meter tester entirely independent of any local body, before any legislation whatever takes place.—Yours, **JAMES KIRBY.**

41 Cuffe-street, Dublin,  
December 31, 1873.

## MAURICE BROOKS.

YESTERDAY a citizen, to-day the chief magistrate of our city, and still a citizen. We are not given to the flattering of public or private individuals; and, however much we may respect a trader or merchant for the honest pursuit of his calling, yet in his public capacity as a representative of public interests, we speak of his actions as they deserve. The new Lord Mayor, if our lights do not mislead us, will be an acquisition to our city in his public character. Upright in his dealings as a merchant, and a large employer of labour, he would belie his long-established character if he did not maintain and be guided by the same principles in his public actions. Much is expected from a Lord Mayor of a chief city—often a great deal more than it is possible for him to accomplish, even if he had the will. There are, however, many things which our new Lord Mayor can attempt and succeed in accomplishing in the interest of our citizens in general and the suffering poor in particular. There are abuses to remove, reforms to be begun, improvements to commenced, and, paramount above all, there is the question of the public health, that needs instant, constant, and close attention. It is hardly necessary on our part to point out all the urgent wants our city, but we have a strong hope that during the mayoralty of Maurice Brooks matters that have long been delayed, and for whose delay no valid excuse can be advanced, will receive proper attention. We shall say no more now, save to congratulate our respected citizen on his well-deserved elevation.

## THE OBSTRUCTIONS IN OUR THOROUGHFARES.

THE nuisance still continues despite some recent warnings. We are determined to pay close attention to habitual offenders throughout the year, and bring public opinion to bear upon the question. We pointed out last year several quarters where obstructions in the public thoroughfare were constant, and on the north side of the city we may instance Talbot-street where the nuisance has become positively outrageous. Both passenger and street traffic is impeded. If the local authorities do not at once see to it, the Police Commissioners must. The law is very plain upon the subject, and we have quoted the act already for the benefit of all concerned. We trust the new Lord Mayor will turn his attention to this among others matters during his year of office, so that a growing nuisance may be abated.

LONDON FOGS.—The *Spectator* says:—"We are very glad indeed to hear that 780 Londoners above the average died last week of the fog. We do not want them to die, of course, but if they were to die, it is better they should die of the fog, and so get rid of the superstition that the most disagreeable, inconvenient, dangerous, and spirit depressing visitation which falls on London is somehow 'good for us.' It is not good for us any more than for cattle, but bad as their registrar's return shows. There is no cure for it except retreat into warm rooms, and we strongly recommend the sanitary reformers to provide them—at other people's expense, of course—and pass an Act compelling all Londoners to stop in them, under penalty of a month. A compulsory use of respirators at £2 a piece would also answer the end sought."



## THE ARCHITECT'S INSTITUTE.

THE President and Council of the Royal Institute of the Architects of Ireland have issued cards of invitation for a *conversazione* on Tuesday evening next, 6th instant, to be held in the Royal Hibernian Academy House, Lower Abbey-street. It is expected that His Excellency the Lord Lieutenant and the Countess Spencer will honor the Institute with their presence on the occasion.

## M. CHARLES BLANC AND THE DIRECTORSHIP OF FINE ARTS IN FRANCE.

THE removal of M. Charles Blanc from the Post of Director of Fine Arts in Paris elicits the following just remarks from our London contemporary, the *Daily News*. An artist's political or religious opinions ought not to be allowed to militate to his disadvantage, unless, indeed, he is guilty of some very outrageous act:—

"The removal of M. Charles Blanc from the post of Director of Fine Arts, which he has occupied since the fall of the Empire with the unanimous assent and approbation of the whole Art world in his own country, and with the respect and sympathy of artists in all countries, is an act which receives additional discredit by the meanness of the party spirit that must have suggested it. M. Charles Blanc, it is true, is an 'avowed Republican,' and he is the brother of that Republican historian who expiated his fidelity to principle by twenty years of voluntary and honourable exile, endured with equal courage and dignity. M. Charles Blanc himself, let it be acknowledged in justice to the Empire, might have retained, even under the Empire, the Directorship, to which he was appointed in 1848, and on which he re-entered in September, 1870, had he chosen, under the pretext of zeal for Art, to acquiesce in the confiscation of his country's liberties, and to accept the favours of the usurpation he abhorred. So far as his personal relations were concerned, he was equally welcome in all societies of his countrymen where genius and art reigned supreme. Political differences were forgotten in the respect justly due to a critic of European reputation, whose Grammar of Design is an acknowledged classic, and whose writings had earned him the honour of a *fautail* in the Fine Arts Academy of the Institute of France. France is generally supposed to be the country of all others in which Art and Letters are held in honour for their own sake; but it seems that even a Ministry presided over by an Academician, proscribes intellectual worth and distinction and artistic culture when they are associated with.

The Dean and Chapter of St. Patrick's Cathedral have appointed Mr. J. F. Fuller, F.R.I.B.A., F.S.A., as their architect.

## TO CORRESPONDENTS.

THE NEW YEAR.—Our readers will find in our first issue for the new year the commencement and continuation of some papers of interest to the members of the building and cognate branches. In succeeding issues there will be published other important papers.

THE MAGAZINES.—In our next will be noticed all the magazines to hand. *En passant* we may remark that our old and esteemed periodical the *Gentleman's Magazine* has, with its first issue for the new year, been brought out under a new editorship. The number is a capital one, and we will have a further word to say in its praise in our next, under "Current Literature."

SACKVILLE PARK.—A correspondent enquires. When will our Civic Council convene a special meeting to appoint a head gardener and assistant to look after the trees about to be planted in Sackville-street? He hopes that no act of nepotism will signalise the appointment this time. Our correspondent is a funny fellow, but is he not a little too open-mouthed?

SOME correspondence and papers intended for the present issue we are obliged to hold over. Correspondents would serve their own interests and our's by forwarding their communications two or three days before the date of each publication.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING. —"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & Co., Homeopathic Chemists, London."

MANUFACTURE OF COCOA.—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—*Cassell's Household Guide*.

## NOTICE.

The Proprietor respectfully requests that Subscribers will, on receipt of this number, remit their respective sums, otherwise their names may be struck off the list.

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We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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# The Irish Builder.

VOL. XVI.—No. 338.

## Jerry Building and Jerry Builders.

"For among my people are found wicked men: they lay wait, as he that setteth snares; they set a trap, they catch men. As a cage is full of birds, so are their houses full of deceit: therefore they are become great, and waxen rich."—JEREMIAH ix., 26, 27.



THE last thirty years have witnessed the rapid rise and evil growth of a most criminal practice in building, which has long since called for the strong arm of the law to put down. In the sister kingdom the evil had flourished for years before imitators were found on this side of the Channel, but we regret to say that within the last dozen of years this city and other places in the island have begun to follow in the wake of the English practitioners.

We are unable to say with accuracy how the term "Jerry" came first to be applied to the low and unprincipled race of builders who commenced to erect human dwellings "cheap and nasty." Whether the cancer had its inception within the building profession, or was occasioned by the suggestion of pseudo house agents, speculative undertakers, or characterless and incompetent operatives, we know not; but this we do know, that the whole of the tribe have been mixed up in Jerry building speculations of late years.

We fear also that a good deal of the evil of "scamped" building must be laid at the door of building societies, as the system has afforded facilities to trumpery and jobbing employers to engage in building work irrespective of their calling. Tailors, shoemakers, publicans, provision dealers, and other tradesmen, have entered into speculative building to our own knowledge. Some few in this city and its environs have erected tolerable dwellings, but of late the character of the houses is on a par with the principles of the speculators.

We have not yet reached in Dublin to the low depths in infamy that have been reached in the sister kingdom, where streets of houses are erected upon made up ground that was used a few weeks previously as "shoots" for scavenge and other viler rubbish. Cheap dwellings are at present erecting in and about London of the most villanous materials—bad and rotten brick and mortar,—that is, but one degree removed from the common street mud by the addition of a small quantity of lime. The drainage is but a make-believe, and where existing in some new and poor neighbourhoods it is carried but a few feet from the houses, where it may find an outfall where it lists. It is no libel on untruth to say that this kind of houses are built to sell and to kill, for kill they assuredly do many of those who unfortunately are compelled, through a variety of circumstances, to live in them.

We could point out in this city north and south of the Liffey vilely built dwellings—streets of trumpery two and three storey buildings, with royal and patriotic names. They are, in the language of the prophet whose words we have quoted at the heading, traps and snares to catch men, and veritable

"houses full of deceit." Yea, and the men who have erected them are erecting more which they intend to sell; and these same men are growing rich on the products of their unchecked villany.

Respectable men may well ask in wonder, Cannot a stop be put to such base practices? to which we reply—Yes, a stop can be put to such scoundrelism, but our responsible authorities will not move in the matter in the interests of human life and the public health. Our local board surveyors and borough engineers do not condescend to trouble themselves in the matter, and the officials of the Local Government Board may plead that the matter has never been brought under their notice by any respectable inhabitant of the districts where these houses have been or are being erected.

It is not the first time we have drawn public attention to the subject, as we have to other equally grievous nuisances in our midst. Vital matters are left unnoticed by our local authorities, and the public time is wasted or taken up in discussing political subjects that have no right to be dragged into the Corporation, but left to the action of our Parliamentary representatives.

Bad building, resulting in badly-constructed dwellings, composed of the worst materials, is quite as bad and as injurious to health as bad food and drink. Jerry houses and adulterated houses and the speculators engaged thereon should be prosecuted for setting traps for killing men, women, and children. The morality of society is very low indeed at present: rascality, open and avowed, is looked upon as business, and the rogue that can successfully entrap a purchaser or a tenant to take a life lease or a three years' one of a house really uninhabitable from its unhealthiness and other causes, will smack his lips in glee, and boast to his quondam friends that he has "done a good stroke of business."

For the credit of the architectural profession, we are happy to say they are nearly guiltless of having to do with "Jerry building" of the common kind, although some of them permit very inferior buildings to be erected, from want of due supervision over the workmanship and materials. Architects have been accused of accepting bribes to wink at or pass inferior work, and it is quite certain that some in our midst are guilty of the offence. Architects are only men, the same as the members of the other professions, and if they are evil disposed there is nothing to prevent them but their own conscience from stooping as low as they like to make money. The builder is often the tempter and the architect the victim, but it is sometimes the other way. The real victim is betimes the client or purchaser of the inferior building who may have to live and carry on his business in it, and find too late that he has been robbed of his money by a pair of rogues. The unfortunate client may still experience further losses, and live to mourn the death of his wife or some of his children—the direct consequence of Jerry building, carried out with the connivance of Jerry architects. Jerry architects? quoth the British public. Yes, messieurs, we have that genus in our midst also, though the practitioners in question can never realise the fact.

Let any intelligent observer go into one of our "To Let" neat detached suburban dwellings that has just lost its first occupier. The tenancy may have been for three years,

but the occupation may have been much less. He will find in one of these charming villa residences of the nondescript style, door and window furniture, fittings and fastenings, all in the same state of consumptive preservation; doors with disjointed locks and broken keys, some that will shoot and others that prefer to let it alone; brass, china, and delft handles or knobs are plentiful, but many of the members thereof are to be found on the floors or mantel-pieces; spindles have lost their screws, striking-plates are gone, and the pivots of several hinges have followed after; the doors drag upon the floors—it matters not now, perhaps, as the carpet is gone, and damp and dilapidation have set in. The window-sashes rattle; why not? the stops are as loose as you please, and the parting slips are broken, and pieces are down in the area or elsewhere. The sash-fasteners no longer fasten, and the broken sash-line with its weight is behind the boxing, if no light-fingered visitor has relieved it from captivity, and sent it to the marine dealer. The paper is hanging in patches from the walls, the ceilings are cracked, the joints of all the joinery-work are gaping open, imploring for putty and paint to hide their shame; the stairs creek under your feet, the water drips down through the ceiling of the top floor from some unruly gutter, and some unmannerly drain under the basement is flooding the house with a stench. The charming suburban villa needs the doctor, and in a few days a few handy men in the hands of the Jerry or jobbing hand will make all smooth and sweet.

We have been drawing no fancy picture, but a *bona fide* one, of the results of the Jerry building system, or, what is nearly allied to it, the slop and scamped system of building performed by indifferent builders, without, or under the supervision of unprincipled, architects. We can say more, but we will stop here on the present occasion, and leave the system of Jerry building and Jerry builders and architects to the reflection of our readers.

## THE SANITARY WORK OF THE FUTURE.

WE looked forward with some hope of finding the present year a satisfactory one in regard to sanitary improvements, aided by effectual sanitary acts. That it may turn out so is still possible, though we confess there are obstacles in the way. It is probable that the next session of Parliament will be the last of the present Government; and, if so, there exists the great danger that the projected sanitary bills will make little headway. Political measures are likely to absorb the whole of the session of 1874, and the friends of sanitary reform will have to commence their labour once more with redoubled vigour under a new administration. Mr. Stansfeld's Public Health Bill will do little good, and a great deal of mischief. It is not too much to say that it reverses the efficient motive power from an onward direction to a retrograding one.

We are advocates for honest local rule, but we are not advocates for placing a system of sanitary administration in the hands of a number of men on such a basis that it can be made to subserve personal ends, and cover no end of misdemeanour. Divided authority works untold mischief, but irresponsible authority works far greater mischief.



To empower a number of men in a public board with the administration of laws affecting the life and death of a large body of the people, is to place an immense, a serious privilege in their hands, that may be worked for evil as well as for good. To give these men the power of appointing officers, and discharging them as they thought fit, and of voting the public money whenever an occasion exists in increasing the salaries of these officers, until the sums paid are largely out of proportion with the duties to be performed, is a stretch of authority that no man in his senses, after a few minutes' reflection could subscribe to, the system is surrounded with evil, but in its relation to public health matters, the question is one that concerns us all so much that it cannot be lost sight of for even a day.

The present sanitary administration of our local boards is rotten to the core. Medical officers of health and sanitary officers, who are sometimes surveyors also, are appointed to places by the vote of their masters, "the representatives of the people." Publicly and privately, individually and collectively, have not the members of several of our local boards been for years past the greatest offenders against the public health? How, then, except in rare instances, can sterling independence be shown by the servants of local boards? How can they master up nerve to report the evil doings of their masters? Have we not found that, in some instances where medical officers and sanitary officers have acted with independence and spirit, their appointments were made too hot for them, and every ruse was adopted to annoy them by making false charges against them, set afloat by those they had offended, by an honest report in the discharge of their public duties?

There can be nothing less than vexation, dissatisfaction, and confusion while the present system of appointments continues, and the whole system of sanitary control properly mapped out and regulated. Doctors have special functions to perform, which they are fully capable of performing; but it is perfect madness to suppose that a medical man can understand, much less undertake, work that professionally belongs to the sanitary engineer and architect. The duty of the medical man and the duty of the engineer are widely different. The mission of the former often commences when the neglect of the latter begins to show its results. A medical man may detect a foul drain and discover impure water; but of matters of detail in drainage, ventilation and house construction, of course he is entirely ignorant. If he is called upon to make a report he will have to be indebted for his practical information to some other officer of his board or a friendly outsider.

It is as clear as two and two make four that the sanitary reform of the future cannot be carried out without the creation of a new, efficient, and independent staff of public officers, and making the appointment of the sanitary engineer a standard institution. The country, in view of the future and rapid growth of population, will have to be mapped out into drainage areas; the water supply will have to be kept pure; and our rivers saved from pollution occasioned by domestic or manufacturing nuisances. The houses in our towns and cities will have to be protected from the escape of sewer gas. Wells and private pumps will have to be rigidly looked

after as to site and contact. A strict watch will have to be kept over the erection of flimsy dwellings and the materials that compose them. Accumulations of filth and refuse of a dangerous kind must be prevented, and in the matter of adulterated foods and drinks heavy penalties must be enacted and enforced against all offenders whatever may be their station. At the same time the very poor must be assisted to preserve cleanliness in their dwellings, and in the surroundings of their dwellings, if they are unable to do what the law requires and public health and safety demand.

The public health cannot continue to be doctored any longer by doctors or laymen. The greatest plagues that inflict society in the way of disease are preventable, and by being prevented there exists no necessity for exerting our energies as to cures. Precaution is a fundamental principle in the science of health; by precaution we avoid evil, by its neglect we are sure to meet it. We have the highest respect for the services of the medical profession—they often labour hard and suffer severely; but it is perfect madness to suppose that the sanitary fabric of the future can be allowed or permitted to rest upon their shoulders. We might as well think of doing away with the architect and civil engineer, and supplying their places with the ordinary builder or contractor, as to think that the members of the medical profession could fulfil the duties that the sanitary wants of the present or the future require.

Sanitary administration will have to be kept entirely free of any political influences. Sanitary reform is no party cry, and we hope it will never be made a mere party shibboleth to subserve partizan ends. All sanitary reforms should be carried out with economy, as far as possible, and without burdening the community with any heavy item of taxation; but at the same time it must be remembered effective measures will need effective administration, through a system of practical appointments. The Sanitary work of the future is large, it cannot be carried out at once; but when once a good system of sanitary administration is established over the empire the work will become comparatively easy.

If it were possible to uphold the present defective system of sanitary control it would work, in another quarter of a century, mischief that might take a century to eradicate, and a succession of no end of scandal, not speaking of the lasting shame and humiliation it would bring on this country. Our present sanitary laws, if they were sensibly and honestly administered, would be nearly sufficient to meet the terrible evils in our midst; but common honesty is absent, and there are too many loop-holes for the lazy and dishonest to escape. The law, when not openly violated, is neglected to be enforced. So the law will have to be reformed first before it is possible to carry out the sanitary improvements that the present and the future of the nation require for its public health and safety.

#### HANDEL'S VISIT TO DUBLIN.

PROF. STEWART, of Trinity College, writes to the *Express* with a view of obtaining additional information respecting the great musician's visit to Dublin in 1741. He says:—

"I am at present prosecuting some inquiries in connection with the visit to Dublin in November, 1741, of the great musician—Handel. Handel was driven to Dublin from London by a cabal formed

of his professional rivals and the English nobility (George II., however, supported the great German). The 'Messiah,' first produced in Dublin on St. Stephen's Day, 1741, proved the turning-point of his success. I find he lodged in Abbey-street, near Liffey-street. Can any of your readers ascertain for me in which house did he reside during the nine months he stayed with 'that generous and polite nation,' as he called the Irish people."

We give publicity to the above with pleasure as it may help to some extent in eliciting what is sought. We think if the files of the Dublin papers of the date were hunted up, it is possible the residence of Handel might be identified. Some of the houses in Upper Abbey-street date back to early in the last century; but there is internal as well as other evidence that Upper Abbey-street, as a whole, was not largely built upon until after Handel's visit. The street has lost some of its old structures and features in the present century; and both Upper and Middle Abbey-streets, as well as Liffey-street, possess but little indeed of the characteristics which rendered them notable ere the close of the eighteenth century.

#### AWARDS TO MASTERS AND MISTRESSES OF SCHOOLS OF ART.

AMONG the following awards, which it gives us much pleasure in recording, will be found the name of Mr. Edwin Lyne, the head master of the Royal Dublin Society School of Art, and also that of Mr. T. M. Lindsay, of the Belfast School, both of whom have well deserved the awards given to them, and even much higher ones. These awards are made in accordance with the principles laid down by the minute of the 19th of February, 1868, having regard to the number of students taught in each school. The Lords of the Committee of Council on Education include in their awards the head masters of sixty Schools of Art in which the general amount of work, as tested by examinations, was relatively most satisfactory:—

W. H. Stopford, Halifax, £50; J. S. Rawle, Nottingham, £40; A. A. Bradbury, Hanley, £40; Charles D. Hodder, Edinburgh (male), £40; W. J. Mackley, Manchester (Royal Inst.), £30; W. Tucker, Kidderminster, £30; W. H. Soumes, Sheffield, £30; John Anderson, Coventry, £30; D. W. Rainbach, Birmingham, £30; Louisa Gaon, Bloomsbury, £30; T. M. Lindsay, Belfast, £20; Robert Greenlees, Glasgow, £20; Joseph Harris, Salisbury, £20; G. Theaker, Burslem, £20; Edwin Lyne, Dublin (Royal Dublin Society), £20; Edward R. Taylor, Lincoln, £20; J. P. Bacon, Stoke-upon-Trent, £20; John Sowden, Bradford (Mech. Inst.), £20; William C. Way, Newcastle-upon-Tyne, £20; A. Brophy, Westminster, £20; John Sparkes, Lambeth, £20; R. C. Puckett, Leeds (Mech. Inst.), £20; Alexander Fisher, Brighton, £20; George A. Stewart, West London, £20; W. Sturgeon, Leamington, £20; John Parker, St. Martin's, £20; John Beotley, Birkenhead, £20; T. C. Simmonds, Derby, £20; John Kemp, Gloucester, £20; Stephen Thomas, Northampton, £20; George Ryles, Devizes, £10; Herbert Lees, Carlisle, £10; James B. Birkmyer, Exeter, £10; A. Stevenson, Keighley, £10; Z. Pritchard, Manchester (Grammar School), £10; John Meozies, Wakefield, £10; Joseph Kennedy, Aberdeen, £10; Joseph Harris, Andover, £10; Wilnot Pilsbury, Leicester, £10; William C. Way, Sonderland, £10; J. Windass, Selby, £10; M. Sullivan, Kendal, £10; John N. Smith, Bristol, £10; Francis M. Black, Kilmarnock, £10; J. F. Ryan, Yarmouth, £10; George Ryles, Trowbridge, £10; S. F. Mills, St. Thomas' Charterhouse, £10; Charles Swinstead, North London, £10; John Finnie, Liverpool (South Dist.), £10; James Carter, Portsmouth, £10; J. P. Bacon, Newcastle-under-Lyme, £10; Susan A. Ashworth, Edinburgh (female), £10; J. C. Thompson, Warrington, £10; Edwin Chandler, Hull, £10; T. Baker, Dorchester, £10; J. S. Dooiny, York, £10; S. F. Mills, City and Spitalfields, £10; Henry M. Geoffroi, Penzance, £10; John Kennedy, Dundee, £10; Henry Woolner, Coalbrookdale, £10.

A new coastguard station at Killough, County Down, is being erected by Messrs. Russell Brothers, builders, of Newcastle, under the superintendence of Mr. William Gray, C.E., Belfast, from designs by the Architect to the Board of Public Works. Cost, over £2,000.



# THE ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.

THE DRAWINGS EXHIBITED ON THE 6TH INST.

At no previous architectural exhibition of the Institute has such a collection of designs and drawings been seen. When one recalls the first exhibition of the Institute, held but ten years ago, and contrasts it with the array of masterly drawings which an exhibition now brings to the surface, it must be conceded that the progress of art-drawing in the profession is somewhat marvellous. Then a few architects produced some feeble Indian-ink-tinted elevations, with an occasional showily-tinted perspective, purchased from some competition drawing manufactory in London. These latter being the beginning of a new era in Dublin architectural practice, and the means by which old-fashioned practitioners endeavoured to hold their place against the new-fangled tide of competitions. Now, we observe, with a remarkable development of young blood, that an exhibition is constituted mainly of masterly drawings—not passed through the easily-recognisable London mill, but home produce. Our young men especially seem to turn with readiness and ability to the practice of pen-and-ink etching, which was first brought into fashion by Mr. Street's remarkable sketching, and since stimulated by the introduction of photo-lithography.

Among the works exhibited at the *convezione*, the palm is borne away by a pen-and-ink drawing of unusual size of Messrs. Pugin and Ashlin's Roman Catholic Cathedral at Queenstown, and which we believe is from the hand of a younger scion of the house of Pugin. If so, the great master-draughtsman's mantle is not wholly lost in descent. If Augustus Welby Pugin could come back to life, he would cry out with us, 'Well done!'

Among the younger contributors, the works exhibited by Mr. Timothy Hevey, of Belfast, are perhaps next in importance, when their number and excellence is considered. In such a notice as this, written from recollection after the works are dispersed, we may only touch on some which have left an impression on the memory. It is more than possible, almost certain, that we shall fail in such a cursory sketch to note many works of great merit,—in fact an article fully entering into the merits of everything exhibited would extend to an inordinate length. Mr. Hevey's Roman Catholic Church, High-street, Holywood, is an admirable drawing and an able design. In front of the west gable are advanced (like Mr. Deane's grouping of St. Anne's front) flanking towers right and left, one an octagonal turret and the other a lofty and well-designed tower and spire broached with lofty octagonal turrets. Between these flanking towers is a lean-to porch against the west gable. It is in this we think a design otherwise able, is open to criticism. The effect is of a west gable and great window narrowed, and squeezed. The effect of the double-arched narthex is to sacrifice breadth, and we should prefer to see it otherwise treated and with a great western portal exhibited. Mr. Hevey also exhibits some drawings submitted in the first competition for the Belfast Catholic Hall, which are unquestionably good. The interior gives us a well-designed concert-room, which, if tinted by Mr. Hevey himself, shews great ability in another field than pen-and-ink.

Proceeding with the younger contributors, Mr. S. P. Close shews a number of clever pen-and-ink sketches of picturesque English architecture, which, we were glad to observe, deservedly attracted marked notice. These sketches, with those contributed by Mr. Drew, are illustrative of a five days' tour in Northamptonshire. If a collection so extensive and so graphic can be made by two members of an architectural association in the four or five days' annual excursion, it says a great deal for the value of such societies. The Town Hall, Larne (the gift to the town of Mr. Charles McGarel), is pleasingly sketched

by Mr. Close. Amongst the other able sketches in pen-and-ink, perhaps the most elaborate and striking are two drawings of Belfast Castle, the new seat of the Marquis of Donegall at Belfast. These very careful and finely-finished drawings give us, in a manner reminding us of Billing's Baronial Antiquities of Scotland, a stately pile in the style of Architecture which Billing illustrates; they appear as the work of Mr. John Lanyon, late of the firm of Lanyon, Lynn, and Lanyon. These drawings both illustrate the architecture carefully, and give a good impression of the picturesque site happily selected by the marquis, under the Cave Hill, and overlooking from its most charming point of view the Lough of Belfast. Adjoining these views we noticed a large drawing, by the same author, of a projected Grand Hotel for Belfast—a scheme which we hope in the cause of progress is not hopelessly dormant. It gives us an imposing pile of building, a good composition, in what has come to be recognised, in the "Palatial Hotel Style," one of the offsprings of this part of the century in which American influences have somewhat re-acted on the architecture of the old country. Such as the style is, it is at all events an accepted one for the purpose, and an able man can shew ability in it.

Mr. W. H. Lynn, now dissociated from the firm of which he has been long known as a part, comes before the public on his own account with some characteristic works of merit. If Mr. Lynn's works are remarkable for one feature as distinguishing them from his contemporaries' more than another, it is his conservatism of styles—an eclectic of the eclectics. *With new styles and Victorianism* Mr. Lynn has no manner of sympathy. His compositions, as wholes, are masterly often and original, but in detail they are invariably carried out "according to Cocker" in whatever style he elects to work. The example is a good one. He gives us here a design for coloured decoration of Gibbstown House, Co. Meath, a palladian mansion of great size and importance. Mr. Lynn's scheme for the entire decoration of a grand entrance vestibule and galleried hall crowded with a coffered dome (in coloured marbles and mosaics) is refinement of Classic detail, with quiet, effective use of colour. The spirit for doing such correct Classic work is dying rapidly out in this generation. Next Mr. Lynn has to show: Glasslough, Co. Monaghan (for John Leslie, Esq.), a French Renaissance pile grouped and depicted on a naturally grand site, with an artist's feeling; but we cannot help thinking that the colouring is wanting in light atmospheric effect. Further on Mr. Lynn shows: "A Methodist Church, Belfast"—this time the style is Early Decorated Gothic. This striking building is chiefly remarkable for a tower and rich spire of really grand scale—a Non-conformist cathedral, in fact, as it strikes us—and for the fact of its being one of those magnificent gifts of a single individual to a community, of which there have been notable parallels among ourselves.

This notice will be continued in our next number.

## INFORMATION WANTED.

The names and addresses of the parliamentary witnesses on the Grand Trunk Dublin Railway Bill. Anyone supplying particulars of the previous occupation, or subsequent demise, of any of those select witnesses, will please address letter to I. O. U., at the offices of Schedule, Blinkum, and Scrip.

The baptismal register of the late Alderman Budge. Any parish clerk or sexton supplying a copy of the above will be liberally rewarded. Address, Temporary Offices of the Bilgewater and Patent Bung Company, Skinners'-row.

Some account of the property and trusts of the late City Guilds of Trade, and how they have been disposed of, and those now

holding possession of them, is desired by advertiser at once. A handsome sum will be paid for accurate information and particulars. Address, "Civis," at the office of the IRISH BUILDER.

Information wanted of the number of gentlemen who composed the Corporate deputation to London in the summer of 1869, and the copy of the proposed agreement signed on that occasion contingent to certain concessions. Address, "French" and Co., Bantam-street, Blackpitts.

Benjamin Badenough and Malachy Bomford, cousins-german, known as the "Corsican Brothers," and formerly residing on Coppingers'-row. Any information as to their place of burial, or copies of their wills, will be most acceptable, and the person supplying such will be liberally rewarded. X. Y. Z., Hibernia Chambers.

Information wanted as to the name of the architect who designed the antiquarian gazebo on the Liffey Boulevard, or the surveyor who supplied the quantities. The plans and elevations have come into the possession of advertiser, and are so extremely curious he intends to publicly lecture on their composite style, for the edification of the present generation and the next. Address, Andrew Martin, at the publishing office of the "Irish Fiasco."

Information is desired concerning the first opened negotiations between the directors of the late Hibernian Gas Company and the Alliance and Consumers' Company, and of the exact nature of the overtures made to both companies by Mr. Blank, the projector of the third or bogus company that ended in smoke. Reply by letter, Mr. Linsey-Woolsey, 33½ Cotton-parade, Coal Tar-Square.

Practical and ready methods wanted for constructing cheap six-roomed houses for tenants with limited incomes, at a cost ranging from 12 to 15 per cent. lower than the ordinary prices. Also the best methods for utilising sappy timber, refuse brick, and liquid road mud for building purposes. Address, "Jerry," offices of the Friendly Building and Burial Society, Murdering-lane, New Kilmainham.

## THE ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

The annual meeting of this association, announced for the 7th instant, has been postponed until Wednesday, the 21st. We understand that several members who had matters of interest to bring forward were prevented from doing so in consequence of the very inclement weather then prevailing.

## THE ROYAL IRISH ACADEMY.

A GENERAL meeting of the Royal Irish Academy was held on Monday evening, at the Academy House, Dawson-street. The chair was occupied by

SAMUEL FERGUSON, Esq., Q.C., LL.D.

Professor Casey, LL.D. (for John Malet, Esq.), read a paper on "Elliptic Functions." Dr. Ball read a paper on "Screw Co-ordinates, and their Application to Dynamical Questions."

The following gentlemen were balloted for and declared elected members of the Academy:—William Gray, Esq., 6 Mount Charles, Belfast; John Christian Malet, M.A., Trinity College, Dublin; Rev. Edmund McClure, A.B., University-square, Belfast.

At the meeting of the Council, held on the 5th inst., it was resolved, "To recommend the Academy to grant, out of the Parliamentary Grant for promoting Scientific Researches—£30 to Messrs. Draper and Moss, towards their researches on Selenium; £35 to G. J. Stoney, Esq., towards the construction of the Academy's Spectroscope."



## NOTES ON THE ANCIENT ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,  
F.S.A., SCOT.

### EARLY CHRISTIAN MASONRY.

WE have now arrived at a period when a marked difference appears in our early mason-work; all the varieties previously described have this feature in common, that no lime or other cements were used to cohere the material; all the varieties I have now to illustrate shew the universal custom of building in mortar. Whether the use of lime cements was introduced with the christian faith or otherwise, is a question now difficult to settle; there is no doubt that all our primitive churches, even those of the very earliest period—as Gallarus, Ardmore, &c.,—are built in mortar, of a remarkably hard and tenacious character, shewing that at the remote period when they were constructed the art of making good mortar was well understood—an art that never has been learned in a day, but is the fruit of practice and experience,—an art that has rather declined than improved.

Most of the ancient wall sections that I have examined shew that the mode of construction adopted was as follows:—The facing stones were dressed, and laid both beds and joints in tolerably fine mortar; a grout was then prepared, of hot lime, sand, and gravel, and the heart of the wall was filled with it; stones of various sizes were then packed into the grouting—a treatment exactly similar to the concrete building lately revived; in fact, the walls of our ancient churches may be called compound walls, of masonry and concrete.

It is to be remarked, that the stone-work of the early christian period does not shew much apparent advance in the preparation and fitting of the material; examples of what must be considered pre-historic, uncemented masonry, exist, fully equal in those features to any examples in the following christian period. That the mode of masonry construction I have described above was general through the country, is confirmed by the personal observation of Mr. G. H. Kinahan, who, describing the churches in the neighbourhood of loughs Corrib, Mask, and Carra, thus notices their masonry:—"The stones are usually laid in horizontal courses, with more or less irregularity, and with their joints not always vertical except in the doorways and lower courses; the stones rarely extend as bonds through the thickness of the walls—the space between them being filled with rubble and small stones and thin grouting."—(*Jour. Royal Hist. and Arch. Assoc.*, v. 1868-9, p. 77.) Numbers of these primitive buildings have been enlarged at various times, and where such occurs the difference between the masonry of the thirteenth and fourteenth centuries and the more ancient work is quite apparent, the former being inferior in the dressing and fitting of the material, and in the quality of the mortar, but shewing a regular system of cross-bonding, in which the latter is deficient.

One noticeable feature in these early buildings is, the size of the material used; in most cases the stones are of large size. The late Mr. Windele informed me that he saw a small church in one of the Arran Isles, one of the flank walls of which was built of eleven stones, one of them of enormous size. In the lower parts of the flank walls of the western end of Tomgraney Church, County Galway, and in the flank walls of Britway, County Cork, will also be found work of this class.

The early church masonry of Ireland cannot be classified by dates, as we find examples reputed to be of the sixth and seventh centuries as well executed as those of the eleventh and twelfth. From a personal examination of a great number of our primitive churches, it would appear that the differences in the masonry arose from the nature of the materials used, as well as from the local skill

of the workmen, rather than from the prevalence of any particular manner or fashion in masonry.

One remarkable feature in our early work is the custom which prevailed of what I would call interlocking, for want of a more technical term. The old workmen, when they got a good-sized block in hand, having irregular corners, instead of reducing the face to a square or a rectangle, they notched out the defective parts into regular angles, and fitted the next stones into them; they appear to have done this from an objection to reduce the size of the material. This description of masonry will be found very generally in our primitive churches, and in the basement storeys of our round towers; some very curious examples of it are to be met with. Some of the oldest masonry in the world exhibits similar features; the primeval constructions of Greece and Southern Italy, attributed on account of their antiquity to the Cyclops and Pelasgi, exhibit specimens of masonry identical with that I am describing. This identity has not been as carefully considered as the importance of the subject demands. Mr. Marcus Keane has alluded to it in his *Towers and Temples*, and has given comparative illustrations of both; but, startling as he shews the resemblance of the stone-works of the two peoples to be, in the necessarily limited examples he has given, it will be found far more so when the subject comes to be thoroughly investigated.

I have selected some specimens of masonry for illustrating this branch of my subject that may be looked on as representing the various modes which prevailed among the old Irish masons in wall-construction.

Fig. 1 on lithograph represents a portion of one of the flank walls of a small primitive church, apparently of great antiquity, on Scatterry Island, in the Shannon, opposite Kilmash. It exhibits a good specimen of spawled rubble, some of the stones being of large size; it is a class of work often met with in districts where the stone is of a hard nature, and inclined to run flat.

Fig. 2.—This is a specimen of masonry from the north wall of Our Lady's Church at Glendalough; the building is in a very ruinous state—in fact a mass of rubbish, overgrown with ivy and briars. I had much difficulty, on my visit in 1853, in tracing out its plan, but succeeded in doing so. I found it to consist of a nave and chancel; the former is 32 ft. in length and 19 ft. 9 in. in breadth, clear of walls, which are 3 ft. 1½ in. thick. Fortunately, sufficient of the west gable has stood, and consequently has preserved to us a remarkably fine doorway of the usual early type, and of massive masonry; it is 2 ft. 10½ in. in clear of jambs at the sill, and 2 ft. 6½ in. at its head, and in height 6 ft.; each jamb is formed of three huge blocks the entire thickness of the gable, and the lintel consists of a large slab, also the full depth; upon the soffit is carved a St. Andrew's cross of an ancient type. On the front is incised a plain band of 8 in. wide and ½ in. projection, and on the lintel only is some evidence of a second band or architrave; the material is granite, and the work is well cut. The chancel is of rather unusual proportions; it is 20 ft. 3 in. in length, and 17 ft. 10 in. in breadth; the north wall is entirely prostrate, and but a few feet of the east gable and south wall standing; there are no traces of the chancel arch, neither could I discover the number or position of the window-opes. The masonry is of massive character, the stones large and well jointed, and in some instances cut one into the other; when originally finished, it was a very fine piece of work. The doorway is illustrated in Dr. Petrie's work, p. 169.

Fig. 3 is taken from a ruined church of very early date at Oughtamma (the eight paps), in a remote corner of the barony of Burren, and County Clare, not far from the famous abbey of Coremuroe. Two of these churches have been already described; the masonry is of peculiar character, the stones of large size, some of them 6 ft. and 7 ft. in length, and all dressed to their natural forms,

and laid close without spawling—a class of masonry apparently in great repute among the early craftsmen, and of which I have seen many examples. There can be no question that such masonry as is shewn in the sketch from Oughtamma requires much greater skill in the workman than mere ashlar work, where the stones are squared and laid in regular courses; in the latter there is no doubt a considerable waste of material, in the former the labour of fitting is vastly increased. The old masons could not afford to cut down the size of their stones by squaring, except for quoins or dressings of opes. Stone of any size was no doubt difficult to procure; in those days there were no such facilities for raising it as we possess, and quarrying must have been a work of tedious labour. To this cause I would attribute much of the peculiar class of work we find in our early buildings—a class of work that in its picturesque lines accords admirably with the quaint Pelasgic architecture of these primitive structures.

Fig. 4 is a specimen of masonry the exact locality of which I am unable to give; I sketched it some years ago from an old church, but neglected to note its locality in my sketch-book. As will be seen, one of the stones is nearly 11 ft. in length and another 7 ft.; the work was put together without spawling.

Fig. 5.—This is a very curious specimen of what I would call interlocking masonry; it is taken from a very ancient church named Temple-ne-Nieve (*Teampail-ne-Naoimh*), i.e., as my informant, an Irish-speaking peasant of the locality, explained it, the Church of the Nine Saints. It is situated on the south-west coast of Clare County, not far from Carrigaholt, and consists of a simple nave 33 ft. in length and 15 ft. 2 in. in breadth, clear of walls, which are 3 ft. thick. This little church has been much altered and a plain pointed doorway inserted, and also a plain rectangular window-ope, both in the south side; there is a rude stone altar at the east end. The masonry, which is of the character shewn in my sketch, is exceedingly curious from the irregular forms into which the stones are cut; it has more affinity to the polygonal work attributed to the Pelasgi than any I have seen, the stones being generally of large size and closely jointed without spawls. At the south side of this church is a curious elevation of masonry, 32 ft. 7 in. long and 7 ft. 9 in. broad, and at present varying in height from 9 in. to 2 ft. 6 in.; the sides and ends are built of rubble masonry, and the interior at present a mass of earth and stones. At the south side stands a plain stone cross, 2 ft. 6 in. high, which had been dug up on the ground a few years before my visit. This rectangular mound is known by the name of the Grave of the Nine Saints. The place has at present no trace of interments either ancient or modern, there not being a single tombstone or grave-mound; it must have been disused for a long period back.

Fig. 6 shews the south wall of a small church in one of the Arran Islands at the entrance of the Bay of Galway; it is copied from a sketch by the late Mr. John Windele, who visited these islands. As will be seen, the stones are of enormous size, one of them nearly the full height of the wall; the union of the largest and smallest material in this piece of work without any apparent necessity, is very singular. The masonic constructions on these islands are well worthy of a careful study.

I have not alluded to the masonry of the Round Towers, which present us with examples of every kind, from spawled rubble to finely-finished ashlar. Whatever difference of opinion may exist as to their origin and uses, all agree as to their extreme antiquity. Dr. Petrie, the champion of the Belfry theory, admits that Round Towers were erected as far back as the sixth century. Admitting his view of their age, we have ample evidence in their construction of the advance which the Irish Celts had made in the art of masonry prior to the twelfth century. Finer examples of stone construction



than the Round Towers of Devenish, Cashel, Clonmacnoise, and Ardmore present, are not to be found, both as regards the quality of the work and the principles observed in their erection; for a comparison of the sections of half a dozen of these structures will show that their designers exhibited much skill and forethought in their proportions and constructive arrangements.

## THE BUILDING STONES OF IRELAND.\*

(Continued from page 5.)

### CHAPTER III.

*Mica and Clay Slate—Remarkable Example of Mica Slate at Killiney; its distribution—Extent of Clay Slate Deposits—Roofing Slate, where Quarried; peculiarity of Cleavage—Quartz or Rock Crystal.*

In a preceding chapter we have given the theory of the formation of granite, the foundation and basis upon which all the other rocks have been erected; and we have shewn how, by sedimentary deposit, layer after layer has succeeded each other, built up like courses of masonry by the great Architect of the universe; and, as compared with all measures of time familiar to us, the formation of these successive strata must be counted back by periods illimitable, to which our knowledge of this earth's surface necessarily appears recent when contrasted with the historical data indelibly written upon it.

The mica and clay slate systems are the oldest of sedimentary deposit; but before entering into consideration of any, it may be necessary to remark that each of these strata partake in a greater or less extent of the nature and character of the rocks they are superimposed on; and it is often difficult, sometimes impossible, to trace the beginning of the one and the ending of the other, and *vice versa*. This has given rise to numerous subdivisions of the different groups; but to follow them would be unnecessary for the purpose of these chapters, besides extending them to far greater lengths than would be desirable. We will therefore confine ourselves to the description of the principal strata of each.

Mica slate, usually found resting upon granite, graduates imperceptibly into the clay slate which is generally found resting upon it. Although this rock is largely developed in Ireland, it does not occur to any great extent in Leinster. Commencing at Killiney, a remarkable example of mica slate, or mica schist, as it is called, exists in the cutting which forms the land side embankment of the Dublin and Bray branch of the Wicklow Railway. Midway between Killiney station and the mouth of the Dalkey tunnel a large extent of stratum largely impregnated with iron is observable, and it is thrown into every variety of position, from nearly horizontal to perpendicular, whence it extends in a narrow fringe edging the granitic districts by Bray Head through Wicklow and on to Wexford. In Mayo, Donegal, Derry, Tyrone, and Galway it is a most important rock, as covering large surfaces; but it is altogether absent in Munster. Clay slate is divided into two formations—the upper and the lower, and generally overlies mica slate; but this does not always follow, as it is sometimes found directly resting upon granite. The lower division extends over an immense area in the counties of Cork, Kerry, Waterford, Wexford, Louth and Down. The upper occupies the greater part of the south-west of Kerry, stretching into the adjoining County of Cork, and extends thence to Dingle Bay. The bold peninsular character of these districts, forming the magnificent bays of Bantry and Kenmare, with the picturesque heights of several of the Killarney mountains and the wildly beautiful scenery circling Glengariff, are altogether due to the natural formation of this rock; it is found in other parts of Ireland, but

in limited quantity, as in Armagh, Tyrone, Derry, Donegal, Down, Clare, Wicklow, Waterford, Wexford, and Mayo.

Roofing slate has been quarried in Ireland with more or less success for a considerable period; and, according as greater depths have been arrived at, the quality is much improved, some of it scarcely inferior to the best Bangor. It is found at Broadford, Ballagh, and Killaloe, in Clare; Cahir, Begnish, and Valentia, Kerry; Rathdrum, Carnew, and Dunganstown, Wicklow; Clonakilty and Kinsale, Cork; Ross, Lismore, and Glenpatrick, Waterford; Westport, Mayo; Newtownbarry and Kilkeven, Wexford; Letterkenny and Buncrana, Donegal; Bangor, Ballywalter, and Hillsborough, Down; and at Crossmeiglen and Newtownhamilton, Armagh; but the principal quarries are at Killaloe and Valentia. Sir Robert Kane states, in his "Industrial Resources of Ireland," that slabs of Valentia slate are easily obtainable 30 ft. long from 4 ft. to 5 ft. wide, and from 6 in. to 12 in. in thickness; and he appears to think it might safely be used in place of bearing timbers for the support of floors and ceilings of large rooms. This conclusion would seem to have been arrived at from its great resistance to transverse fracture; but, calculating from its necessarily central specific gravity, we can hardly recommend the experiment being tried. There are specimens in the Museum of the Royal Dublin Society from Killaloe quarries of as large an area as 10 ft. superficial measurement, and this slate is largely used for roofing purposes. Valentia slate does not split so delicately as Killaloe; it is therefore not as suitable for the finer qualities of roof slate, and is consequently more employed in the form of slabs and for flagging, for which the large dimensions it is obtainable in render it suitable.

A curious peculiarity exists with regard to slate rocks. Their line of cleavage is invariably at an angle different from their horizontal beds. All other sedimentary rocks split in the line which is known to have been that of their deposition; but with slate this line of cleavage is at an angle differing from what was its original bed: hence it has been concluded that some great predisposing cause, as a large amount of subterranean heat, must have pervaded the entire system subsequent to the deposition and disturbance of their strata, which has had the effect of re-arranging their constituent parts in this peculiar manner; and this is the more easily accounted for from their immediate contiguity to the granitiform rocks.

Clay slate is an important material in the numerous localities in which it occurs, because, where it will not split in laminae sufficiently thin for flags or roofing purposes, it affords a valuable stone for ordinary building works.

Quartz, one of the constituent parts of granite, though not particularly useful as a building stone, may as well be alluded to here, as it is most generally found associated with the mica and clay slate formations, occurring in large veins protruding through, and in great beds cropping out on the mountain ranges of slate districts. It contributes largely to the wildly romantic attractions of Connemara, forming the summits of some of its highest mountains, particularly Benabola, or the Twelve Pins, and also to the picturesque beauty of the Bay of Dublin in the panoramic view of the peninsula of Howth with Bray Head and the Sugar Loaf Mountains, which are all capped with it.

In Wicklow it constitutes the extensive mountain range stretching from the Avonmore to the Vartry, and also Coolatin Hill, Shillelagh. In Wexford it is general throughout the county, occasionally met with of a deep red tinge, from its impregnation by oxide of iron. It is of pure white near Kilogue, and known as the white rock. It also forms the substratum underlying a large portion of the town of Wexford.

The surface stone of the north Island of Arran, in Galway Bay, is entirely of this formation. Flesh-coloured quartz in large

veins permeate the granite districts of Armagh. It occurs in massive rounded boulders near the southern coast of Kerry and near Kerry Head, as well as in many other parts of Ireland.

Numerous beautiful specimens of quartz crystal are found throughout the island, perfectly transparent and occasionally of various hues, according to the colouring matter they have imbibed.

### CHAPTER IV.

*Sandstone, description of—Fossil Remains—its distribution in Ulster, Connaught, Leinster, and Munster.*

Next to limestone (which shall form the subject of our next chapter) the sandstones are most widely distributed, occupying in one form or another almost every county in Ireland, and are, therefore, most important considered as building material. They are divided into two distinct groups, the old red and the new yellow—old and new comparatively when considered in relation to the vastly different periods of their formation; but the term red is not literally correct, because this tinge prevails but in few instances, and arises, where it occurs, from a greater quantity of oxide of iron permeating through it than is general with Irish sandstone. Mr. Griffith considers that the carboniferous strata of the County Cork should be considered a third formation. As this is an isolated strata and does not occur in any other of the Irish counties, it may be better to recognise only the divisions above given. Conglomerate is sandstone in its coarsest form, and consists of pebbles of different sizes cemented together with calcareous matter. Where the clay slate joins sandstone the texture of both becomes modified, and the colours and peculiarities of each are blended together, forming the material which is quarried as flags in different parts of the country.

There is no more interesting study in geological history than the sandstone formation—occasionally preserving the impressions of the most delicate plants, minute insects, shells, fossil fish; the foot-prints of aquatic birds, the rippled surface left on the seashore after the tide has receded, and the patten of the rain drop, both vertical and oblique, showing the point of the wind whence its course had been directed—all these perfectly preserved in their sharpest outline—and in them we have records written in indelible type of bygone periods and ages far removed from our time, yet so plain as to be identical with what is within our reach day after day. Limestone offers remarkable examples of fossil remains in its numerous preserved shells, &c.; so also does the coal formation, but in a different way, in the flora of past ages, reproduced to us in the most marvellously minute manner, but in no other but the sandstone formation can we so manifestly recognise the power of the Great Creator, completely and perfectly familiarized to our understanding.

As we have before mentioned, the distribution of this stone is very general; and, taking the provinces and counties as they occur from the map, we will commence with Ulster.

In the mountains of Donegal it exists in considerable quantity, resting upon limestone, and overlaid by granite, but being near their summits, it is in an inconvenient position for use.

In Down, on the sides of Strangford Lough, for a length of about seven miles, it rises in some parts 350 feet, capped with green stone rising 150 feet more; from these quarries the celebrated Scrabo stone is obtained.

There are also quarries at Kilwarlin, near Moira, where flags of considerable dimensions are raised, varying in colour from a light grey to a brownish red; but the quartose sandstone of Fermanagh is a superior stone, being equal in durability and fineness of grain to any in the British islands. Green

\* Written for the IRISH BUILDER, by W. H.



sandstone, coloured by some metallic oxide is general in Derry, and sandstone both of the old and new formation extends the entire length of the county, and surrounds its mountainous districts, stretching thence into Tyrone.

In the latter county the red sandstone occupies considerable portions of its southern and eastern districts, and is nearly equal to the Fermanagh stone.

In Monaghan it is found all over the county, and there is a peculiar and very beautiful white stone on part of Slieve Beagh, which is extensively quarried as being suitable for all architectural purposes.

In Antrim, as in Derry, a green sandstone is plentiful in the neighbourhood of Belfast. It also occurs near Carrickfergus and Larne, the underneath strata being red sandstone of a variety of degrees of fineness, in some places approaching to conglomerate, and in others of remarkably close texture; and this formation is found to prevail in the entire south-eastern borders of the county, and in detached masses along the eastern coast.

Armagh is more celebrated for its limestone; yet there is a beautifully close-grained quarry at Grange, where sandstone of every variety of texture can be obtained.

In Cavan the Slieve Russel mountain range, forming the boundary between Ulster and Connaught is occupied principally near their summits by the new red sandstone formation, and in many parts it forms perpendicular cliffs of great height, producing scenery of the grandest and most imposing character. The summit of one of these mountains is entirely composed of it, forming a large table-land, split up and traversed in every direction by enormous fissures.

This stone is not as extensively developed in the province of Connaught as in Ulster. In Sligo there are numerous beds of a yellowish sandstone, and it is discovered in quantity in the mountain ranges. In Leitrim extensive quarries, and of a very fine grain of yellowish white colour, are worked near the summit of Glenfarm Mountain; there are also several quarries in this county.

In Roscommon it is to be seen in isolated hills, and forms the long range of Slieve Bawn, the summit of which is capped by irregular masses of it, looking like huge boulders. It is also quarried in several parts of this county as flags, which, from the evenness of their beds, are highly valuable as local material. Mayo contains many valuable quarries of red sandstone, which is easily wrought and most durable stone.

In Leinster there exists even less of this material than Connaught. In Westmeath near Moate and Ballymahon, it appears in isolated protuberant masses. In Kildare in a few of the hills, as Lyons and Grange Hill. In the King's County the Slieve Bloom Mountains are surrounded by it, and in these quarries excellent flags are raised from 7 ft. to 8 ft. square. At Old Leighlin-bridge in Carlow there are the well-known quarries of argillaceous sandstone flags occupying a bed of 200 feet in thickness.

Isolated masses of sandstone are found in Longford, and a considerable space at both sides of the Shannon is occupied by it, extending into the adjoining counties of Roscommon and Leitrim. It occurs in Wexford in greater abundance than any other county in Leinster, a great portion of its coast-line, forming hold and abrupt precipices, is formed by it. In the inner haven of Wexford it is easily distinguished by its deep red colour.

In Munster the entire range of the Roscrea and Devil's Bit Mountains in Tipperary, are sandstone in mass, overlaid by conglomerate. So also are the Galtees. The lower range of Slieve-na-muck produce excellent flags of large dimensions, and extensively used for local purposes. In all the mountain districts of this county sandstone in great variety is obtainable; it is also very abundant in Limerick, forming the hills of Knockaderry, Ballingarry, and Kilmeedy, and the mountains forming the boundary line between this county and the adjoining one of Cork.

Kerry is largely supplied with sandstone;

many of its mountains are entirely of this formation, and eastward on the coast the sea-cliffs are exclusively composed of it. So also are the range of mountains which separate Kenmare from Bantry Bay.

In Cork extensive quarries are worked near Bandon, and also at Innishannon; and it is found generally distributed throughout the county, but particularly along the coast-line. The south-eastern angle of Waterford is entirely composed of sandstone.

ERRATUM.—Note to Lough Neagh in Chap. I:—"Lough Beg is 15 feet lower"; this should have been 15 inches.

(To be continued.)

## CIVIC LYRICS.—No. LIII.

### THE MUNICIPAL CLERK'S LAMENT.

(Air—*The Girl I left behind me.*)

I'm overpowered with office work;  
From ten till two I'm worried;  
I wish I had been shot at Cork,  
Than here on Cork-hill buried!  
With applicants I'm bored to death,  
Who peevishly remind me;  
I put myself quite out of breath  
With the work I've left behind me!

Long office hours are killing me;  
I'm dying fast by inches!  
Of course I work unwillingly,  
Because the shoe it pinches.  
My salary it needs a rise;  
It then might firmly bind me,  
To use my hands and both my eyes  
On the work I've left behind me!

Oh, holy Patriek, hear my prayer;  
And may the good Saint Bridget  
Both guide and guard me everywhere,  
From labour, pain, and fidget!  
The less I do, the more I'm paid;  
In life they'll never find me—  
In public duty spoiling trade,  
On the work I've left behind me!

CIVIS.

## ON FIREPROOF BUILDING.\*

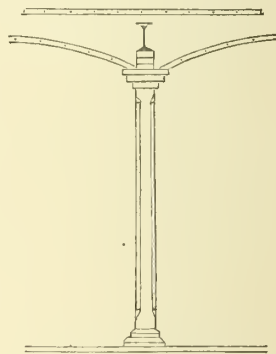
### PART II.

(Concluded from page 6.)

THE ordinary construction, called fireproof, consists of brick arches carried on iron beams, which generally rest on iron columns for intermediate support, the end arches being tied by iron bars to prevent out-thrust of the walls; and what generally happens when a fire takes place is, that the columns become softened or split by a dash of cold water while they are very hot, or the under side of the girder—which is generally exposed to the greatest strains—is weakened by heat or split by sudden cooling, or the tie-rods lose their tensile force; the floors fall in, the walls fall out, and the very process adopted for the preservation of the building greatly facilitates its total destruction. Of the two, a common timber floor, well ceiled underneath, would have lasted longer, thereby giving more time for salvage, and could not, at the worst, have done or suffered more than the pseudo-fireproofing; but still something can and must be done to protect the iron-work, as by its means alone can the sort of structure, which is required for the business, be erected with the necessary stability.

In designing such a building, the architect should first ascertain the smallest area that he can be allowed to use as the unit of construction; he should subdivide by internal partition walls as far as he will be allowed to do so; and, having thus arrived at the floor areas of which the intended building is to be composed, and finding that the spaces over which he has to carry his floors render it necessary to avail himself of the constructive facilities afforded by iron, he must set himself to work deliberately to contrive such a mode of using it as will protect the iron from the effects of fire. If columns are required for intermediate support, I think they might be of iron, of somewhat larger diameter

than usual, and the interiors filled solidly with cement concrete carefully packed and rammed—the idea being that the cement should form an interior column capable of sustaining the load in the event of the iron failing; or of  $\perp$ -shaped iron with a coating of brick in cement; or, best of all, a simple shaft with cap and base constructed of bricks laid in fine Portland cement as nearly skin to skin as possible: these would be not very slightly, but that is of very slight importance when the enormous damage to be overcome is considered. But as it is not worth while to make anything uglier than it need be, I should recommend a shaft square on plan, with edges chamfered, and stopped at top and bottom: this would have the appearance of a clumsy timber post, but a series of them would not look amiss. Then as regards the floor itself—in which I include not the surface only, but the whole mass from floor to ceiling which separates the two storeys,—what we have to do is to support an area, say 15 ft. or 20 ft. square, and at the same time present to the action of fire a surface, above and beneath, which shall be absolutely unflammable, and which shall not be subject to any alteration of dimensions or strength by the action of fire, nor be destroyed by the action of wet. I believe these objects would all be attained, as nearly as possible, by the construction which I have sketched, which



consists of a beam of rolled iron resting on a cushion of brickwork not less than 3 in. over the finished top of the pillar. When the beam is set it should be painted and well sanded all round; then a platform or centreing should be erected of the exact form of the intended under-surface of the ceiling when finished; over this tiles of any pattern that may be approved should be laid, face downwards, filling up the whole surface; the remaining space should then be filled in to the level necessary for laying the floor tiles with a concrete prepared of Portland cement, sharp silicious sand, and broken bricks and potsherds, or broken granite or sandstone, carefully excluding all calcareous stone, gravel, or sand. The upper surface should be properly levelled and floated, and a course of flooring tiles laid and grouted with cement in the ordinary way. The supports of the centreing should be suffered to remain as long as possible, and it would be advisable in all cases to finish each floor complete *pari passu* with the walls, letting the cement concrete which forms the floors rest solidly for some inches in and on the outer walls.

There are, I confess, doubtful, or rather unsettled, points about this construction, viz.—1st. The proportion of the load to be supported by the iron girders, and consequently what the proportions and sectional area of them should be. 2nd. The transverse strength of beams or slabs of cement concrete; no experiments that I have been able to find have yet been made to determine this. 3rd. Whether the tiles forming the under coating would not be detached by fire or water suddenly dashed against them when hot. I would wish to say a few words on each of these points. First, as to the basis of calculation of the load to be borne, or the amount of work to be done, by the iron. It will be observed that, from the nature of cement concrete, it differs from a floor formed either of beams and joists or of a brick arch, inas-

\* By Mr. James H. Owen, M.A. Read at meeting of the Architectural Association of Ireland, December 15th, 1873. For Part I. see IRISH BUILDER, vol. xiv. (1872) page 304.



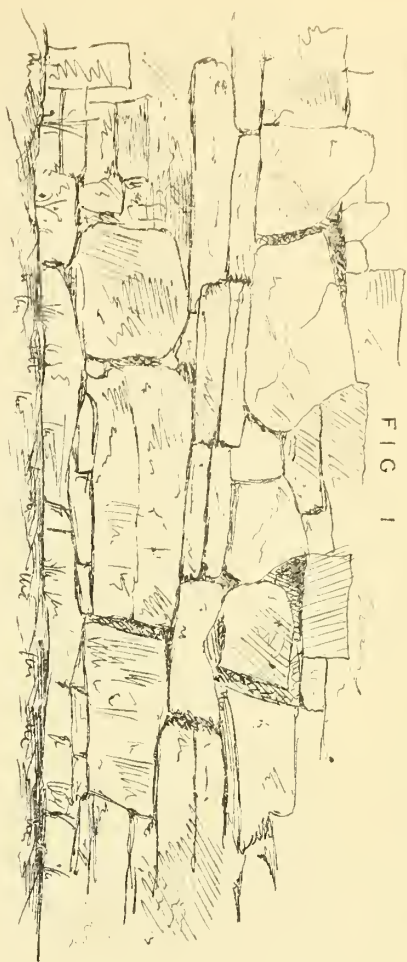


FIG. 1

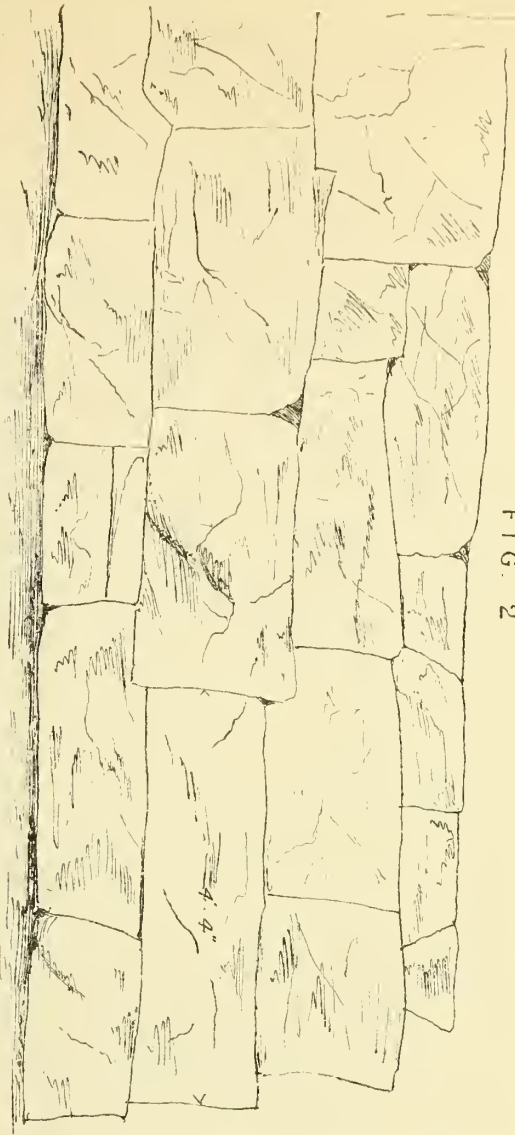


FIG. 2



FIG. 3



FIG. 4

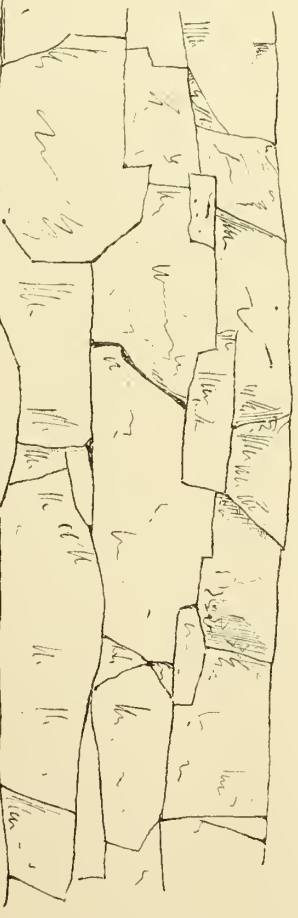


FIG. 5

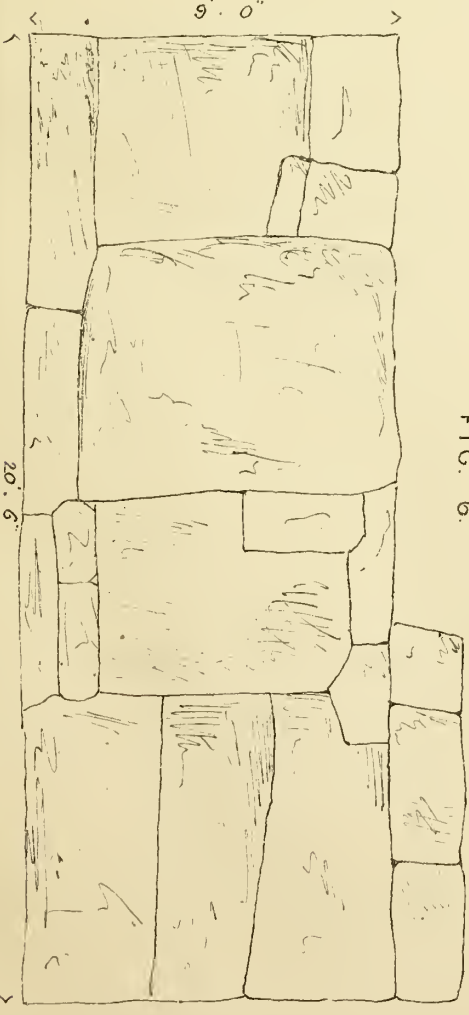


FIG. 6

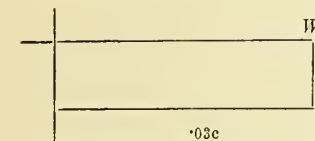


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much as it resembles a slab of stone; and in that it is at one and the same time both a load and self-supporting, within moderate dimensions, we can readily conceive a square slab of concrete to be independent of support except on two sides of it. And here comes in the second doubtful point. If we had the strength of a slab of concrete stone as well known as that of a slab of granite or limestone, we should know exactly that, with a certain thickness, we could use it with safety for a certain projection beyond the supporting wall. To take an example: no architect would hesitate to fix a landing of granite projecting 4 ft. 6 in. from the supporting wall and 6 in. thick, or to cover a space 9 ft. between the walls by slabs of granite 6 in. thick; in either case it would be recognised that iron beams under the joints would have nothing to do—would be superfluous. We have not that experience as regards slabs of concrete; we do not know how far they are to be trusted, and therefore I recommend the employment of iron in conjunction.

The only experiments, of which I have any knowledge, which have been made in this direction are those of M. Vicat and one made at the Great Exhibition of 1851. M. Vicat made a beam of hydraulic lime and granitic sand, as sketch, of the following dimensions:—



Experiment No. 7.

|           |         |
|-----------|---------|
| c.        | foot.   |
| L 0.03 =  | .098427 |
| D 0.025 = | .98427  |
| B 0.04 =  | 1.5748  |
| W 32.00 = | .62096  |

Experiment No. 8.

|         |        |
|---------|--------|
| kil.    | cwt.   |
| 47.00 = | .92515 |

Applying the general formula  $W = \frac{bL^2}{c}$ , we find the value of  $c$  to be, in No. 7, .16 cwt., and in No. 8, .235 cwt. These results are very low as compared with the value of  $c$  for other materials; as, for instance, 3 for Riga fir, 4 for red pine, 18 for cast iron, &c. I cannot help thinking that the exceedingly small dimensions operated on were very unfavourable for an experiment of the kind on such a material.

The experiment made at the Great Exhibition of 1851 was somewhat similar. The beam was of pure Portland cement, 14 in. long, 4 in.  $\times$  4 in., and it bore 1,580 lbs. Adopting the same formula, this gives a value of 1.174 cwt. for  $c$ , or rather more than one-half the value for Riga fir. But as Portland cement loses its strength very materially by admixture with sand, we must reduce the constant very materially for this reduction; but, on the other hand, there is nothing easier or more natural than to increase the strength of the Portland beam by giving it a curved form underneath; and for the same reasons that we make a beam of iron of a parabolic form in order to collect the materials exactly into the place where they will produce the maximum of effect, so we should give the beam of Portland cement an arch form of the same shape underneath; and it is not improbable that this expedient would make up for the loss of strength caused by adding sand and gravel to the cement—or, in other words, of using concrete in place of pure cement.

One other thing to be borne in mind is, that in all cases of using cement concrete for covering over spaces the value of  $B$  becomes extended. In an ordinary beam we have  $B$  only a few inches, and bearing the weight of an average of 10 ft. of floor. In the exhibition experiment the weight amounted to nearly 4½ cwt. per foot superficial of floor; and as the extreme weight for warehouses

and factories is only reckoned at 2½ cwt. per superficial foot, there was evidently great excess of strength, considering the proportion of 4 in. of breadth to 10 ft.

I must not dwell longer on this subject, or you will fancy I can never get down from my hobby. I do hope, however, that those who have the opportunity will try really testing experiments on concrete in this sort of application, and publish them for the benefit of the profession. I feel rather confident that the result will be that floors and ceilings combined can be constructed of concrete, which shall rival any other form of material as regards price, strength, and economy of space.

I think it desirable to add a few words as to precaution which may be used in lessening the tendency to catch fire in buildings which are not in their nature actually non-inflammable or intended to be so. Wherever timbers are exposed, it is very desirable to cover them with a coating of common whitewash, which acts doubly as a preservative, both by excluding air from the timber, and from its non-conducting power. This will, of course, be of no use when a fire has once been kindled and got to a head; but in case of fire, seconds of delay in kindling it or communicating it are of vital importance. In many a workshop or factory, if the floors and roof timbers were kept well whitewashed the risk would be much diminished. Special precaution should be taken about the floors and fireplaces: there is frequently great carelessness in trimming joists and fixing grounds for skirting, &c. It would be very desirable always to skirt chimney breasts in cement or plaster, and to fill in the place under the hearthstone with cement concrete. Ceilings, again, should be formed with much stronger laths and better nailed; and if about 2 in. of rough mortar, the coarser the better, is laid over the laths between the joists, it will be found very difficult to set fire to them—they would resist for a considerable time even a fierce fire underneath. Again, all rooms should have a good height, otherwise the constant operation of gas lights is to prepare the timber of the ceilings for combustion on the most rapid scale, if the opportunity is once given. As regards all stoves, great attention should be paid to their being so arranged as to avoid all risk arising from the heat of the stove itself, its flue pipe, or its ash-pan; no stove should be considered safe the flue-pipe of which cannot be heated to redness with perfect safety to the building. But in all ordinary buildings the most important point to attend to is the staircase: it should be, if circumstances will admit, closed at top and bottom, cut off from the passages leading into the rooms, and in the construction of it it is very desirable to lath the soffits with extra strong laths, and filled in from the upper side with concrete, so that all the space at the back of the riser and under the tread shall be a solid mass of non-inflammable material. Such a staircase will probably stand and bear the weight of persons ascending and descending under circumstances where an iron or stone staircase would be destroyed or useless.

Finally, every building should be furnished with some one or other of the excellent means now available, at very little expense, for immediately attacking an incipient fire—such as the Hydropult and the Fire-Extinguisher; the Extincteur and the Fire-Annihilator are little better than scientific toys, and the ordinary appliances of fire-remains and hose in a house or building utterly useless—nothing but waste of money,—they are things that from the nature of them can never be proved, no one can be practised or exercised in the using of them, and would be, in the event of a fire in the building, the last thing that would be got to work.

I feel that in what I have read to you I have conveyed very little positive information, in which I think I have truly represented the state of the subject in the minds of those whose attention has been most drawn to it. I have endeavoured rather so to treat it as to lead you to think it over, and to think

about it on right principles, and to do whatever you do with some better reason for doing it than the very common one, that it has been so done before. In absolute darkness it is the safest course to stick close to and follow your leader, but when there is any light it is best to use your own eyes, and he will be the most successful man in every walk of life who oftenest asks himself for a reason for any course he may be pursuing.

### THE KILKENNY AND DUBLIN WATERS.

It has been proverbially remarked, in relation to Kilkenny, that it boasts of “fire without smoke, water without mud, and streets paved with marble.” The Marble City certainly possesses coal that emits very little smoke, and has large beds of valuable marble, even if the streets are not literally paved with that valuable limestone; but in respect to its water being *minus* mud, we fear the adage does not hold true.

Dr. Cameron, the City Analyst, has lately been testing the drinking water of this famed inland city, and the result of his analysis is in nowise encouraging to “the Boys of Kilkenny,” or its maids or matrons. He says:—

“I have examined 20 specimens of water used in the city of Kilkenny, and submitted to me for that purpose by the Corporation, and the following are the results at which I have arrived:—Numbers 4, 5, 6, 13, 16, and 17 are quite free from sewage pollution; but some of them are rather hard and contain much sulphate of lime. The best is number 17, which includes only 22 grains of solids and 8 grains of sulphate of lime per gallon. Number 4 is very hard, and contains 72½ grains of solid matters, and 39 grains of sulphate of lime per gallon. Nos. 7, 18, and 19 are nearly as pure as the foregoing; but they contain much sulphate of lime. All the other specimens contain the products of the decay of animal matter. Numbers 3 and 8 are the most impure samples amongst the 20 submitted to me. It would be desirable to discontinue the use of these impure waters. It is to be regretted that out of the 20 specimens there is only one which can be regarded as at all fit for supplying a large town; for, although the majority of the waters are free from sewage pollution, they are quite too hard to be used for cooking and washing. Those that contain the larger proportions of sulphate of lime are not suitable for persons whose digestive organs are weak or easily affected.”

The names and localities of the wells, pumps, and other sources of the supply are given, with the quantities of solid matters, including sulphate of lime, ammonia, organic nitrogen, nitric acid, and nitrous acid. We have a kind of veneration for our old immemorial wells and pumps, many of which have historic associations; but in these days of main drainage and sewage schemes—rendered necessary by the existence of thick-matted populations, and the consequent nuisances that must be rapidly removed, in the interests of public health—our veneration must give way to duty. In large cities and towns the sources of the supply of our wells and pumps are poisoned by the filtration of sewage and other equally noxious agents; therefore their disuse in several districts becomes a necessity.

Here in Dublin many of our famous wells of the last century have disappeared by the growth of the city, being covered in long since. To many of them were attributed medicinal qualities, being mineral and purgative, and their waters were copiously drank for the cure of divers diseases. If some of these wells were uncovered now, they would be found dry; while others would be found to contain water indeed, about whose purgative qualities there could not be the least doubt. The majority of the wells and pumps of Kilkenny must follow in the wake of our metropolitan ones. What is unsafe to use, is a public danger; and if there be one thing more than another which needs to be pure for both animal and human use, it is water. Water, as the poet Pindar said long centuries ago, is the best gift of heaven. Who will ever live to gainsay him?



## THE PRESIDENT'S ADDRESS.\*

MY LORD, LADIES, AND GENTLEMEN,—It is my pleasing duty, on behalf of the Royal Institute, to convey to you its hearty welcome, and to express to you its warmest thanks for the honour you have done it by visiting it to-night. The presence of so numerous and distinguished a body of visitors is most gratifying and cheering. We see in it a proof that you take an interest in our pursuits, that our work is appreciated, that our efforts meet with your encouragement and sympathy. Without this appreciation and encouragement on the part of the public, the art element in architecture—that which distinguishes it from mere building—which adds grace and beauty to utility—must languish and decay. As long as the land is inhabited, and men have need for shelter for themselves, their goods, and their cattle, buildings must be erected and the builder's trade must be practised; but architecture will not begin to exist until the more natural wants and necessities have been modified by culture and refinement. It must be confessed that public opinion in Ireland is still lingering, to some extent, in the rudimentary stage, and that there are not a few persons who confer the title of "Architect" on every artisan who is not actually himself working at day wages under a master. This may perhaps also be attributed to the national taste for conferring titles of honour, just as Ensign Brown or Lieutenant Smith become Captain or Colonel by popular brevet; but there is also in it an unmistakeable want of that education of the taste and understanding which reveals that there is more in "Architecture" than mere building, however sound and honest.

Our profession, like all the rest of the world, is subject to the laws of demand and supply. What the public want, that will always be supplied. Improved churches—better arranged and more tasteful houses—more ornate and spacious shops—more commodious theatres—all these, if there be a demand for them, busy hands and busy brains will be ready to produce; and it will not unfrequently happen that the supply will stimulate and extend the demand—tasteful architecture has a reproductive element in it: one handsome and well-appointed country house will seldom remain long the solitary specimen in its neighbourhood; one good new building in a street exaggerates the meanness of its shabby old neighbours; but we cannot do without an appreciating and employing public. The young enthusiast may employ himself in elaborating designs, sketches, studies, and what not; but the necessity of living will soon bring him to the production of what the public want and are willing to pay for. He may do something, and in some rare case a great deal, to educate the public; but their wants, and wishes, and tastes must always be the measure of the architecture of the day.

What is to be the future of Architecture? What chance is there of a distinctly national style being produced among us? I believe that there is no chance whatever of anything of the kind; but, on the contrary, that, just as all the old distinctions of national costume are rapidly disappearing under the influences of easier intercommunication, and as it becomes more and more difficult daily to distinguish by their appearance the nationality of persons of the educated classes, so the distinctive characteristics of the architecture of the nations which are most advanced in modern civilization will become more and more minute and evanescent; local colouring will disappear, and nationality of character will to a great extent merge in one universal modern style, which will have for its basis the adaptation of each structure to its intended use, with such ornamentation superadded as the nature and purposes of the structure may suggest, borrowing ideas both of construction and ornamentation from the past, using freely what has been done before, but never slavishly following arbitrary and

empirical laws in anything. This, I feel convinced, is the tendency of the architecture of the future; and as it is undoubtedly in a right direction, it gives great promise of leading to right conclusions. It may be said, indeed, that this altogether excludes the idea of originality,—that if we are always to go on borrowing from the past, there exists for the future only a bald repetition of familiar forms and used-up ideas. But such use of old materials is inevitable in every mental pursuit which has attained a certain stage of development. Give the architect a differently constituted order of human beings to lodge, or different climatic influences to counteract, or materials to use of a nature different from any that have been before employed, and it becomes his duty to be original—to invent means and appliances for meeting the new wants which are presented to him, and counteracting the new and strange influences, and to originate, after due analysis and experiment, the best and most efficient mode of using his new materials; but as long as he has to work out the same old problems, with the same old data as all his predecessors have been engaged upon, he must be satisfied to work under the same old laws, the truth of which has been established by the experience of ages, and to seek for the credit of originality only in the right and just application of them. All other originality is the originality of conceit and ignorance, which, wilfully leaving the beaten paths, and striking out ways for itself, too often ends in quagmires and culs-de-sac, to the loss and discredit of the rash originator. At the existing stage of the history of the art the only possible originality is to be found in the happy adaptation of old ideas to modern uses; in studying the work which we have to do in the same spirit which moved the excellent and honest architects of old, we shall perhaps succeed in producing such results as they would have attained, with the same objects to be aimed at and materials to be used—we shall imitate without copying.

We are indebted to-night for our place of meeting to the graceful kindness of the President and Council of the Royal Hibernian Academy, which it were ungrateful of us to pass over without public acknowledgment, and the more so as it has enabled us to solicit the honour of your Excellencies' attendance at this meeting, to countenance by your presence the efforts of Irish architects, as they are exhibited on the walls of these galleries. They are poor and humble enough, probably, in comparison with similar exhibitions in the great centres of the population of the world; but, as compared with the position and population of Ireland, they cannot but be considered as shewing satisfactory progress and tendencies in a right direction, which time, and the improvements in the social condition of the country which are undoubtedly taking place, will hereafter confirm and develop.

The Royal Hibernian Academy is indebted for their lodging in these very suitable and convenient apartments to the love of art and the liberality of one of my predecessors in office, Francis Johnston, who was architect to the Board of Works down to about the year 1830.\* However much I or any of his probable successors in the future may be tempted, by possession of the same feelings to imitate his action in this respect, there is very little probability of his ever being able to yield to the weakness, by providing the Royal Institute of Architects with a suitable habitation, or to contribute to the art-education of the country in any appreciable degree. The works that he is chiefly engaged upon are of a strictly utilitarian character, and must bear that character impressed upon their exteriors. I have sometimes experienced a feeling somewhat analogous to that of Hans Andersen's Ugly Duckling, as if I were cut off by the sphere of my duties from all the beauty and grace which is open to my

more fortunate compeers, who are not limited, as I am, in the range of their works; but I have consoled myself by the reflection that ornament is not always beautiful,—nay, sometimes that attempts at ornamentation only produce deformity; that simplicity is not always or necessarily mean; that plainness and ugliness are not, rightly considered, synonymous terms; and that there is room, even for the Architect to the Board of Works, to contribute something towards the advancement of the art, by studying how to do common things well and honestly.

The great topic of the day, as far as our profession is concerned, is the necessity of adapting all our works, whether public or private buildings, whether single or in groups, to the rules and requirements of sanitary science. I am not going to dwell in this address on the subjects which it took our talented townsman, Professor Cameron, a course of lectures only to touch upon very recently. I merely call attention to it to suggest the caution, that, while it must not be ignored altogether, it must not be treated partially or one-sidedly, or suffered to engross our whole attention to the exclusion of other considerations which are of equal importance, and above all to maintain strict moderation, and avoid extremes. I may illustrate my meaning by calling your attention to the fact that water—that element of our daily food on the supply of which, in a pure and wholesome state, we are so dependent for healthy, vigorous life—is not to be found in a state of absolute purity in nature; it is only with considerable difficulty that the chemist can procure it in that state for his experiments. The chemical analysis of a water which is of admirable quality for all the uses of man, reveals an amount of admixture of foreign matters that is quite startling until the test of experience is applied to the analysis, to determine whether the admixture is such as to afford wholesome food or deadly poison. In like manner we must carefully avoid allowing ourselves to be carried away by appearances—of permitting scientific facts to divert us from following the results of experience. It is an undoubted fact that prolonged breathing of the same air is prejudicial to health, but it is equally true that it is not necessary to establish a thorough draught through every room to make it habitable. We must dilute our science with a large measure of common sense, if we are to get out of it all the benefit which it is capable of affording us, and, without doubting or discrediting the results of scientific enquiry, use them in the true scientific spirit—not blindly or rashly, but definitely,—with careful relation to quantity and quality, and giving all the circumstances of each case their full weight and consideration.

I will not trespass longer on your attention to-night. Our works, however interesting when completed, afford but a dull, uninteresting subject for discussion. I will only again thank you for honouring us by your presence, and wish you all a happy new year.

## SHORT

## EXTRACTS FROM A FORTHCOMING ARCHITECTURAL DICTIONARY.

**BUILDER, s.** An undertaker, a contractor, house agent, valuator, civil engineer, architect, or a general factotum in building or jobbing matters.

**BUILDING, s.** The craft of construction in any or all kinds of materials; an edifice of stone, brick, road mud, rubbish, and miscellaneous *débris* of old or new structures raised on good or bad foundations, irrespective of drainage, ventilation, or health.

**DRAWINGS, s.** Draughts, plans, sketches, uncoloured or highly coloured; a representation of the appearance or figures of objects as they ought to appear when embodied in stone, brick, wood, or plaster, but which they seldom do.

**ENGINEER, s. (civil).** A delineator or constructor, or overseer of his own or other people's work; one who generally sneers at

\* Delivered at *Conversazione* of the Royal Institute of the Architects of Ireland, January 6th, 1874.

\* Francis Johnston died on the 14th of March, 1829, and was succeeded by the late William Murray as "Architect and Inspector of Civil Buildings" at the B and of Works.—Ed. I. E.



the pretensions of architects, although indebted to them for his existence and practice. Civil engineers are often very *uncivil* to brother professionals, and generally view beauty, harmony, and proportion as an impediment to their industry and progress.

**FOREMAN, s. (building).** A walking, working, or overseeing representative of workmen in a building or workshop; a driver or boss; a head slusher; a setter-out of work for others; one who speaks in his master's name, and "sacks" whenever his master thinks it undesirable to do so himself. There are many of the genus foreman, some of whom are very clever, and others too clever by half. (See Blogg's "Autobiography, or Recollections of Fifty Years of Building Life.")

**GARGOYLE, s.** A spouter; an ogree or ghoul in stone, cement, or terra-cotta; the ornamental mouthpiece of a gutter, frequently representing a human figure, or the face of a client by whom an architect was treated shabbily.

**HANDS, s.** A number of workmen, mechanics, or labourers, engaged or disengaged, on strike or locked out.

**INDIAN INK, s.** A substance supposed to be made of lampblack and animal glue, and formerly brought in large quantities from China. Indian ink is much used by architects and others for water colour. London ink would be its proper name, and soot and size its composition. Even this compound is adulterated with suspicious and most dangerous substances betimes.

**JOINER, s.** A gentleman carpenter, a maker and joiner of house trimmings and finishings in wood. Cabinetmakers are joiners, but not carpenters. A gluer-up of pieces of wood, or welder of metals; a vamber and veneerer; a chiseller; a chip; one who joins a trade society; a fancy hand; a fixer. Carpenter and joiner in Ireland are synonymous terms; in England the former is the "rough" and the latter the skilful gentleman.

**KITCHEN, s.** The room appropriated in a house by architects for cooking purposes, sometimes placed at the bottom of the house and of late years at the top. Kitchens are flagged, tiled, or of boards laid upon joists resting on dwarf walls or offsets, with foul drains underneath. Kitchens are generally the worst constructed portions of a dwelling, and they have often to serve as bed-rooms for the servant maids. Kitchens, though intended for cooking purposes, are equally applicable for killing purposes. (See Blogg's "Seven Scamps of Architecture," first and suppressed edition.)

**KITCHEN RAT, s. (i.e., sewer rat).** A gnawing quadruped of the genus *mus*, a hybrid or cross between the water and the land rat. It is the fruitful cause of sewer gas escaping into houses and suffocating both old and young in their beds. Some, who it is foolishly believed have died through the "visitation of God," owe their deaths to the presence of kitchen rats, bad architects, and worse builders.

**LAND, s.** The earth or soil whereon a building is erected; the site, the foundation or space occupied by a house; the disused or filled-up shoot where rubbish is shot; the "eligible" piece of freehold estate reclaimed from the marshes or through the embankment of a river or the sea; an artificial estate, such as Mud Island. Slob lands, in the eyes of some public bodies, are admirable lands, and eligible sites for "People's Parks." (See Mark Neville's "Undrained Sources.")

**MASTER, s.** An employer, governor, or director. The word has many strange compounds, such as *master-builder*, *master-hand*, *master-workman*, *master-mind*, *master-key* (sometimes the false or skeleton key by which burglars or dishonest servants do their deeds); *master-touch*, sometimes construed into an assault by an irritable workman who has had his master's hands quietly laid upon his shoulders and told to "depart in peace." Architects are sometimes *masters of arts* and Fellows of the Royal Society, but they are never called *master-architects*, because they never master their profession. (See "The Builders of Babel," in the Encyclopedia Babylonica.)

## CREMATION AS A SANITARY AGENT.

A VERY remarkable essay on Cremation has appeared in the *Contemporary Review*, from the pen of Sir Henry Thompson. As it coincides to a great extent with our own opinions on the subject, and will doubtless lead to the reform of our present burial customs, we feel great pleasure in reproducing it in our columns. The subject is scientifically, admirably, and delicately treated, and can give no offence to the most sensitive feeling. The rapid increase of population in our chief towns and cities, and the absolute necessity that exists for preserving the public health and removing every agent from our midst that may contribute to the spread or nurture of epidemic, renders it imperative that we should give a calm consideration to the important subject of Cremation, on sanitary grounds if on no other. With these few remarks, we present this excellent essay to our readers:—

After Death! The last faint breath had been noted, and another watched for so long, but in vain. The body lies there, pale and motionless, except only that the jaw sinks slowly but perceptibly. The pallor visibly increases, becomes more leaden in hue, and the profound, tranquil sleep of Death reigns where just now were life and movement. Here, then, begins the eternal rest. Rest! no, not for an instant. Never was there greater activity than at this moment exists in that still corpse. Activity, but of a different kind to that which was before. Already a thousand changes have commenced. Forces innumerable have attacked the dead. The rapidity of the vulture, with its keen scent for animal decay, is nothing to that of nature's ceaseless agents now at full work before us. That marvellously complex machine, but this moment the theatre of phenomena too subtle and too recondite to be comprehended; denotable only by phraseology which stands for the unknown and incomputable—vital because more than physical, more than chemical—is now consigned to the action of physical and chemical agencies alone. And these all operating in a direction the reverse of that which they held before death. A synthesis, then developing the animal being. The stages of that synthesis, now retraced, with another end, still formative, in view. Stages of decomposition, of decay, with its attendant, putrescence; process abhorrent to the living, who therefore desire its removal. "Bury the dead out of my sight," is the wholly natural sentiment of the survivor. But nature does nothing without ample meaning; nothing without an object desirable in the interest of the body politic. It may, then, be useful to inquire what must of necessity happen if, instead of burying or attempting to preserve the dead, Nature follows an unimpeded course, and the lifeless animal is left to the action of laws in such case provided. It is necessary first to state more exactly the conditions supposed to exist. Thus, the body must be exposed to air, and must not be consumed as prey by some living animal. If it is closely covered with earth or left in water, the same result is attained as in the condition first named, although the steps of the process may be dissimilar. The problem which nature sets herself to work in disposing of dead animal matter is always one and the same. The order of the universe requires its performance—no other end is possible. The problem may be slowly worked or quickly worked—the end is always one. It may be thus stated:—The animal must be resolved into—*a*, carbonic acid [CO<sub>2</sub>], water [H<sub>2</sub>O], and ammonia [NH<sub>3</sub>]; *b*, mineral constituents, more or less oxidised, elements of the earth's structure; lime, phosphorus, iron, sulphur, magnesia. The first group, gaseous in form, go into the atmosphere. The second group, ponderous and solid, remain where the body

lies, until dissolved and washed into the earth by rain. Nature's object remains still unstated; the constant result of her work is before us; but wherefore are these changes? In her wonderful economy she must form and bountifully nourish her vegetable progeny; twin-brother life, to her, was that of animals. The perfect balance between plant existences and animal existences must always be maintained, while "matter" courses through the eternal circle, becoming each in turn. To state this more intelligibly by illustration: If an animal be resolved into its ultimate constituents in a period, according to the surrounding circumstances, say of four hours, of four months, of four years, or even of four thousand years—for it is impossible to deny that there may be instances of all these periods during which the process has continued—those elements which assume the gaseous form mingle at once with the atmosphere, and are taken up from it without delay by the ever open mouths of vegetable life. By a thousand pores in every leaf the carbonic acid which renders the atmosphere unfit for animal life is absorbed, the carbon being separated and assimilated to form the vegetable fibre, which, as wood, makes and furnishes our houses and ships, is burned for our warmth, or is stored up under pressure for coal. All this carbon has played its part, "and many parts," in its time, as animal existences from monad up to man. Our mahogany of to-day has been many negroes in its turn, and before the African existed was integral portions of many a generation of extinct species. And when the table which has borne so well some twenty thousand dinners, shall be broken up from pure debility and consigned to the fire, thence it will issue into the atmosphere once more as carbolic acid, again to be devoured by the nearest troop of hungry vegetables, green peas or cabbages in a London market-garden—say, to be daintily served on the table which now stands in that other table's place, and where they will speedily go to the making of "Lords of the Creation." And so on, again and again, as long as the world lasts. Thus it is that an even balance is kept—demonstrable to the very last grain if we could only collect the data—between the total amounts of animal and of vegetable life existing together at any instant on our globe. There *must* be an unvarying relation between the decay of animal life and the food produced by that process for the elder twin, the vegetable world. Vegetables first, consumed by animals either directly or indirectly, as when they eat the flesh of animals who live on vegetables. Secondly these animals daily casting off effete matters, and by decay after death providing the staple food for vegetation of every description. One the necessary complement of the other. The atmosphere, polluted by every animal whose breath is poison to every other animal, being every instant purified by plants, which taking out the deadly carbonic acid and assimilating carbon, restore to the air its oxygen, first necessary of animal existence. I suppose that these facts are known to most readers, but I require a clear statement of them here as preliminary to my next subject; and in any case it can do no harm to reproduce a brief history of this marvellous and beautiful example of intimate relation between the two kingdoms. I return to consider man's interference with the process in question just hinted at in the quotation, "Bury the dead out of my sight." The process of decomposition affecting an animal body is one that has a disagreeable, injurious, often fatal influence on the living man if sufficiently exposed to it. Thousands of human lives have been cut short by the poison of slowly decaying, and often diseased animal matter. Even the putrefaction of some of the most insignificant animals has sufficed to destroy the noblest. To give an illustration which comes nearly home to some of us—the graveyard pollution of air and water alone has probably found a victim in some social circle known to more than one who may chance to read this paper. And I need hardly add that in times of pestilence its continuance has been often due mainly to



the poisonous influence of the buried victims. Man, then, throughout all historic periods, has got rid of his dead kin after some fashion. He has either hidden the body in a cave and closed the opening to protect its tenant from wild beasts, for the instinct of affection follows most naturally even the sadly changed remains of our dearest relative; or, the same instinct has led him to embalm and preserve as much as may be so preservable—a delay only of nature's certain work—or the body is buried beneath the earth's surface, in soil, in wood, in stone, or metal—each mode another contrivance to delay, but never to prevent, the inevitable change. Or the body is burned, and so restored at once to its original elements, in which case nature's work is hastened, her design anticipated, that is all. And after burning the ashes may be wholly or in part preserved in some receptacle in obedience to the instinct of the survivor, referred to above. All forms of sepulture come more or less under one of these heads.\*

(To be continued.)

## CURRENT LITERATURE.

### THE MAGAZINES.

*Blackwood* is a heavy number for the New Year. The late Lord Lytton's "Parisians" is concluded. "International Vanities" is a well-written experience of the vanities it includes. The late John Stuart Mill's Autobiography is dealt severely with in an article, and shows its writer to have but little respect for the training of Mill's philosophic mind. The "Indian Mutiny" is treated by Sir Hope Grant. "The New Year's Political Aspects" is the leading political paper of the magazine, and handles, of course, the Gladstone Ministry in as damaging a manner as facts and fallacies allow.

*Fraser* has an Irish Home Rule article, in *re* the late Conference. Home Rulers will find food for thought and response in this article; it will not please them, but that is none of our affair, as we are not politicians. "The Convents of the United Kingdom" is an article that calls for no notice from us. "Original Letters of Tasso" will afford enjoyment to many. "The Ashantee War" is the name of another paper on a current topic, in which the Government comes in for heavy rebuke, the war being considered by the writer unnecessary and unjust.

*The Gentleman's* opens well, and shows new features and editorial management. The number commences with a new serial story, entitled "Olympia," a very sprightly and promising one. "Fishing in a French Moat" is an amusing paper. The writer ought to try his pen at "Fishing in an Irish Bog." "Life in London" and "Sir Edwin Landseer" are two good papers. An article on "Bazaine," by Mr. Forbes, deals harshly, we think, with the French Marshal. *Apròpos* to the approaching Royal Marriage, George Augustus Sala has written a paper to order—"The Home of the Czarevna." Considering the exigencies under which the veteran "special" and journalist has laboured, the paper is not a bad one. The remainder of the papers are all good. We think Mr. Hatton's story "Clytie," good as it undoubtedly is, is a little too protracted. On the whole the new issue of the magazine, which is an old favourite, commands and deserves success.

*London Society* contains four or five good papers. "Russia," by Mr. Phillimore; "Confessions of Doctors," and the poetical contributions by Guy Roslyn, will afford pleasant reading. Of Miss Marryatt's story, "No Intentions," we have spoken long since.

*Belgravia* has good illustrations and a couple of good stories—"Lost for Love" and "Righted at Last." "The Great Cuban Difficulty," by Mr. Sala, will amuse, but it is evidently written for the purpose of startling the reader. Mr. Sala writes too much betimes to write well, though we know he can

write capital papers when he takes time. Whether he writes for bread or fame we know not. If for the former, his fortune should have been made years ago; if for the latter, many of his latter-day articles will not help him on his road to it.

*Tinsley* for the new year opens very promising and well. Its articles are of a lively and light kind. Mr. Farjeon begins a new serial tale, "Jessie Trim." Of the other papers perhaps the most striking are—"Cleopatre," "Mabel," and "Linley Rochford."

*St. James's* has a number of good contributions. The editor gives a graphic description of matters in "The North-west of Canada." The serial tale, "Miss Dorothy's Charge," goes on well from old year to new. "Mr. Shindy's Adventures in Search of Liberty" is amusing. Were the article written in Dublin or for Dublin readers the name of Mr. Shindy would probably be more effective. "Edith Dewar, or Glimpses of Scottish Life and Manners" is an interesting contribution. There are a couple of small papers of merit, but they are outside our province of criticism on the subject.

*Cornhill* has a very good paper on "House-keeping," which maids and matrons would do well to peruse. The serial story, "Zelda's Fortune" continues well.

The *Fortnightly Review* gives a well-written review of Mr. Mill's "Autobiography," but one unfavourable to that great thinker. "Wealth and the Increase of Wages," by Mr. H. Fawcett, is a very good and sensible paper. Another good paper is that on "Banking," by Mr. Inglis Palgrave.

## MAXIMS FOR LOCAL LEGISLATORS.

BY A CITIZEN.

Public health, public wealth.

The best caution is precaution.

Effrontery may ascend to a great height, but like water it has a corresponding fall, and finds its own level.

Never feel curious to know what other people think of you, for happy illusions are better than blighted hopes.

Let wisdom mark your every forward movement. Increase of rates should show increased improvement.

The supplement of God's noblest work is man's honest labour.

Tall talkers are small doers.

Represent the many instead of one, for the cause is generally weak indeed when the minority is solely represented by yourself.

A bird in the hand may be worth two in the bush; but remember there is such a thing as "catching a Tartar," and finding him one too much.

He who speaks about what he understands will be understood, and will rarely have to publicly complain of being mis-reported or mis-represented.

Shew wit and reason, but on no pretence

Shew by your word you're destitute of sense.

Be cautious of neglecting your own private and family interests for the public interest, for want of thrift and weakness at home cannot long co-exist with respect and influence abroad.

Think well before you make a motion, as a commotion is often the consequence of a lack of forethought.

Open competition for all public contractors, but no opened tenders for any single contractor. [No paradox.]

Rule with economy if you will;

But be sure to rule with credit still.

The advent of Nepotism in public appointments is generally the advent of incompetence and corruption.

An honest Press is the exponent of public opinion; a servile one the dictator of a faction.

Dirty days, show dirty ways.

Dirty doors, show dirty floors.

Dirty words, show dirty Boards.

Stand up in defence of the liberty of speech, but stand down before you are betrayed into a licence of it.

Local boards are Local Parliaments according to their spirit and constitution, and so long as they are free from corruption within, they will resist aggression from without.

By providing employment for the industrious poor, you prevent the pauperism of the many.

'Tis said, "Great cry and little wool"

The pigs when shearing give:

Like them are men who play the fool,  
And noisy while they live.

Libel not the humble nor the strong;  
Give no scandal though you suffer wrong;  
Uphold what's right, though you may be blamed;  
Truth immortal never can be shamed.

Thin-skinned individuals should not ape a public position, for men who cannot stand the brunt of honest criticism have no claim on the indulgence of others to hear their opinion.

As a man's companions show his character, so do the state and institutions of a parish prove that of its representatives.

Good books, bad covers oft enclose;  
Good men are oft in threadbare clothes;  
Judge not by appearance any one,  
Or 'twill be the rock you'll split upon.

Dirt is the fruitful parent of disease, and the greater the mortality of a city or township, the greater is the negligence of its responsible authorities.

## ON SOUND.

PROFESSOR TYNDALL has been delivering a series of lectures at the Royal Institution, London, on "Sound." In speaking of the vibration of strings and wires, the professor said that the musical sound sometimes produced by telegraph wires by the blowing of the wind against them was caused by the wires vibrating with regular impulses which followed each other in quick succession, but the wires themselves presented too small a surface to set up much motion in the surrounding air. The vibrations of the wires, however, were communicated to the telegraph posts, which acted as sounding boards; thus the vibrations of the telegraph posts were the real cause of the larger portion of the musical note heard by the ear, so that in reality the telegraph posts produced the singing noise, and not the wires. He then exhibited a curious experiment, proving that a flame could act like a sounding board. He took a large broad flat gas flame, and after striking a tuning-fork, placed its prongs on opposite sides of the flame; every time he did so a louder note came from the fork, although not quite so loud as when he placed the end of the tuning-fork on the table so that the table should act as the vibrating object. He then performed some experiments with singing flames. He took some glass tubes of various sizes, and inserted little gas flames inside the lower ends of each; the various tubes then emitted musical notes, because the current of air passing up each tube caused the flame to vibrate; the longer the tube the lower was the pitch of the note. One very fine and large glass tube pealed forth a note like that of an organ; and when he placed a large gas flame in the bottom of a zinc tube 15 or 20 ft. long, a hurricane of sound, almost deafening, was the result. Towards the close of the lecture he allowed some water to issue in a jet from an iron nozzle, and the jet of water broke into drops and spray 2 or 3 ft. from it; he then tried the action of various kinds of music upon the jet, and showed that certain sounds caused the jet to form a continuous stream, and not to break up into drops at a short distance from the nozzle.

Taking up the subject in a subsequent lecture, the Professor went on by calling attention to the musical notes due to the longitudinal vibrations of solid rods and tubes. He took some long rods of deal, mahogany, and other kinds of wood, and holding each of them near the centre with one hand, he drew a piece of resined flannel over one of the ends of the rod with the other hand, a musical note being the result. In sounding a large glass tube in this way, he threw it with the flannel into such a state of musical vibration that the tube was shivered into pieces, several of the pieces being perfect rings of glass, because the vibrations divided the tube into alternate spaces of condensation and expansion. In another experiment he placed a piece of plate glass, about 6 ft. long and a third of an inch thick, in the electric polariscope, the Iceland spar crystals of which were so arranged that no light would pass; yet when the bar of glass was made to emit a musical note it was thrown into such a state of vibration as to act upon the light and permit it to pass through the crystals to the screen. Thus the theatre was slightly illuminated every time the glass emitted a musical sound. The

\* "Burial at sea" is a form of exposure, the body being rapidly devoured by marine animals.



lecturer then explained the action of resonant columns of air, showing how they would reinforce the sound emitted by tuning-forks and other vibratory musical instruments. He explained that sound travels through hydrogen four times faster than it travels through air; and in the former case the waves are four times the length of the others. Sound also travels slower through carbonic acid than through air, the waves in this case being shorter than in air. He closed the lecture with some experiments on resonant tubes and cavities, explaining the principle of the action of Pan's pipes and other musical instruments.

#### PROFESSOR CAMERON'S LECTURE ON COLOURS AND PIGMENTS, AT THE ROYAL HIBERNIAN ACADEMY.

A VERY instructive lecture on "Colours and Pigments" was given by Professor Cameron, Hon. R.H.A., on the evening of the 8th inst., at the Academy House, Lower Abbey-street. T. A. Jones, Esq., President of the Academy, occupied the chair. From the nature of the subject, it was of course to be expected it would be highly technical, yet withal the professor treated portions of his topic in a manner to please a general and intelligent audience. We want more lectures of this kind in our city, and we believe there are not a few men in our city, or having associations with it, who could render essential service if they would exhibit a little more sociality and courage, and step forward in the interests of technical education and the common-weal. It would not be unworthy of the dignity of several leading members of the Royal Irish Academy, Royal Dublin Society, the Geological Society, the College Historical Society, the Architectural, Engineering, Archaeological, and other cognate bodies, to lend a helping hand in the interests of art, science, education, and public health, and of placing a share of their knowledge in possession of the industrious masses. We hope this year will witness an improvement in this direction, and that all the public bodies alluded to will exhibit the following lines on their banners—a motto that we have ever been guided by—

"Beneath our skies no interest stands alone—  
Our standard bears the common weal, or none."

The chairman having briefly addressed the audience on the deep importance to artists and students of the special matters to be brought before them on the occasion, called upon the newly-elected professor to proceed with his lecture. Its delivery occupied fully two hours, and was listened to with pleasure by those present.

#### COLOURS AND PIGMENTS.

Dr. Cameron commenced by descanting on the enjoyment derived from the contemplation of colours. He condemned that affectation for the so-called quiet colours which distinguished the British people at the present day, and contended that their mediæval ancestors delighted in the contemplation of harmoniously combined colours. Three centuries ago a crowd of English men and women presented in their dresses a rich variety of colours—a marked contrast to the sombre aspect which a modern assemblage of men and women present. In ancient times the external parts of houses were brilliantly painted, and the people in every way evinced the pleasure which they derived from colour. Dr. Cameron maintained that amongst ancient nations, such as the Egyptians and the Greeks, colour as a means of decoration was generally employed, and stood in the highest degree of estimation. That the Greeks frequently coloured their statues, even when executed in marble, is proved beyond

all question by the writings of Strabo, Pliny, and Pausanias, as well as by actual remains of ancient sculpture. It is a matter of certainty that the statue of Theseus and others in the Parthenon were coloured. It is stated by Pliny that Praxiteles placed a higher value upon such of his statues as were coloured by the painter Nicias. Strabo tells us that Phidias, who was both a painter and sculptor, was assisted by Pandrus in colouring the statue of Jupiter at Olympia. From Herodotus we learn that the polished marble walls of the temples were generally coloured. In Assyria and Etruria, colour was an essential part of architectural decoration, and effective use of it was made in the Christian churches of mediæval Europe.

A revival in architectural taste has occurred in these countries during the last quarter of a century, and of late years polychromatic decoration of both public and private buildings was becoming more frequent. Coloured glass windows in places of worship, where the internal surface of the walls was white were most desirable. The attempt to produce pictures on glass rarely succeeded, and seldom produced anything more than an imitation of a picture, and not of natural objects. It would be better to expend the money wasted on pictures on glass in painting the walls of the buildings.

After some observations on the subject of stained glass, Dr. Cameron proceeded to describe the theory of colour. White light, when passed through a triangular prism of glass, was broken up into seven coloured lights, such as were observed in the rainbow; of these four were capable of being further decomposed into other colours, and three could not be further affected. The three undecomposable colours were red, blue, and yellow, and these by combination produced the remaining four colours of the rainbow—blue and red producing violet and indigo; red and yellow, orange; and yellow and blue, green. No hard and sharp line divided the prismatic colours, which bled into each other by insensible gradations. When white light falls upon an object and was reflected from it in its entirety, the object appears to be white; when all the light is absorbed, the object appears to be black; when the blue and yellow lights are absorbed and the red reflected, the object is coloured red; when the red and blue are absorbed, and the yellow thrown back, the object is yellow; and a blue colour is produced by the absorption only of the yellow and red. When one light is absorbed and two reflected, a variety of colours are produced by the admixture of the reflected light in different proportions, blue and red producing purple, indigo, violet, magenta; and blue and yellow, various shades of green. As all bodies reflect and absorb a portion of each kind of light, no pigments exhibit pure colours; but the more abundantly they reflect a particular light, simple or compound, the more valuable they are as pigments. The lecturer exhibited several pure coloured lights by means of electricity acting upon various gases and vapours, and said it would be difficult to produce such effects by pigments.

(To be continued.)

#### CORRESPONDENCE.

#### SPORTING "NUTS."

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Earl Spencer will no doubt be highly gratified to learn the *furor* which his appearance in a clean collar, at the meeting of the Royal Institute of Irish Architects, has caused in your contemporary the *Irish Sportsman and Farmer*; the compliment is, however, rendered dubious by the writer winding up the sentence with the information that "a lot of people" with virgin linen were also present. Is this immundo suggestive that the Lord Lieutenant is partial to linen innocent of the wash-tub, or that his little failing is embodied in a desire to preside over meetings of the great unwashed? And, furthermore, what does the writer of "Civic Grumbings"—who, I believe, in his youth, made an unsuccessful "offer"

at architecture—mean by wishing that "any one of the members" of the R.I.A.I. "knew how to make a cornice?" Whatever he means, perhaps it might be as well to inform him that the generality of well-to-do architects do not eke out maintenance by making cornices; for that sort of thing we beg to refer him to our worthy townsman The M'Anaspie. Does our ex-architect imagine that "because he is dirty we shall have no more halfpenny stationery?" and is it owing to the fact of his being connected with a would-be sporting paper that he illustrates the little fable of *the dog in the manger*?

Further on we read: "Sackville-street might be a fine street, which it isn't, in spite of the flattery of patriots." Now I do not care to offer an opinion on this all-important subject; we are convinced, however, that if both the gentleman who bellows "Irish Sportsman" in "B flat" outside that newspaper's office door, and his neighbour, the venerable party who amuses himself in his leisure by tolling a diminutive species of death-bell outside the adjoining house, were removed from that locality (say to Ridley's) the denizens of the flattered street would have much to be thankful for. Perhaps "We, *Irish Sportsman*," would give us half a column on the subject. OLYMPUS.

#### THE CORPORATION, THE MAGISTRATES, AND THE STREETS.

BEGINNING the new year well affords a promise that it may end well. In respect to Dublin a new leaf was needed to be turned to remind the Corporation that there is a limit to effrontery and persistent neglect. Two cases came up before the magistrate of the Southern Divisional Court, in which Mr. Thomas Ryan, Great Brunswick-street, and his next-door neighbour, Mr. Taaffe, were summoned, on the part of the Corporation, for not having sufficiently kept clean the footway opposite their premises. The defendant in the first instance proved that he had for a number of years kept the footway before his door clean—in fact, that his servant several times in the one day swept it, owing to the disgraceful condition of the thoroughfare, and that as his door was opposite to a crossing it soon became dirty again. Mr. Ryan complained that he was 19 years in his present house, and was never called upon to answer a complaint before, and said he was pounced upon and made a victim of because of the shortcomings of the Corporation. The observations of the sitting magistrate, we hope, will be remembered by the citizens. They were just, but scarcely severe enough, on the responsible authorities, who, to cover their own neglect of duty, permit their officers to summon the least guilty offenders. Of course, under the provisions of the Dublin Police Act, the constable had the power of giving warning and of summoning, but if the municipal authorities only performed a tithe of their duty, such cases as Mr. Ryan's and Mr. Taaffe's would not have been heard:—

"His Worship said the case was an embarrassing one for him. The act sued under imposed on the occupiers of houses the duty of having the footpaths opposite their premises cleanly swept; but when parties were summoned before him for neglecting that duty, they invariably made the excuse that it would require the constant, persistent, and undivided attention of their servants, because of the habitual neglect of the Corporation, and the disgraceful condition of the thoroughfares. The streets of that, the chief city of the country, were kept in a scandalous condition, by reason of (he supposed) the fact that the public body to which he referred overlooked a most important portion of their duty. Leading thoroughfares—Sackville-street, Grafton-street, Brunswick-street, and Dame-street—were in such an abominable condition that carriages passing through spattered mud and dirt in every direction, and hence, doubtless, the filthy state of their pathways. He was thus, as he had remarked, in a very embarrassing position, having to deal with persons sought to be made answerable for the shortcomings of third persons. If the Corporation could be made amenable there, any jurisdiction he possessed would be enforced to the fullest extent; but he could not allow the public to be incommoded, and, therefore, must impose a fine in every case similar to that before him. Having made these observations, he would only impose a fine of 2s. 6d."



In the case of Mr. Taaffe, his Worship further observed:—

"Again and again the shortcomings of the Corporation in this respect have been the subject of public notice here, and it is rather curious that they never thought proper, though they come here asserting their rights repeatedly through their officers, and in other cases through their respectable and able solicitors—they never thought proper to offer any explanation of these shortcomings, which are the subject of more complaint on the part of the citizens than anything I know of. That feeling is intensified when they find that because of the very neglect of the Corporation they are liable to a penalty. If the action, or rather the inaction, of that public body is such as to make it impossible for these gentlemen, occupiers of premises in Dublin, to keep their footpaths clean, they certainly are guilty of a great dereliction of duty, and should be made answerable to the citizens elsewhere in a more public manner than here. At present I must, in each of these cases, impose a fine of 2s. 6d."

There is no one of sense will gainsay the truth of the remarks of the magistrate. The Corporation should long since have been made answerable to the citizens, if there was any true public spirit existing in the city. The law, however, is powerful enough to grapple with many of the evils that affect this metropolis, and, if warnings are found to be of little avail, the provisions of the different statutes ought to be stretched to their limit in the interest of the public health.

#### CORPORATE TACTICS ELSEWHERE.

A count-out was made at last Saturday's meeting of Corporation, *in re* the Main Drainage Committee. The report of the proceedings is highly edifying and characteristic:—

Sir John Gray moved the re-appointment of the existing Main Drainage Committee, lest the continuity of the work of the committee should be interrupted by an election of new men. The names of the committee were—Alderman Redmond, Alderman O'Rorke, Alderman Purdon, Alderman Campbell, Alderman Durbin, Mr. Gunn, Mr. Norwood, Mr. O'Neill, Mr. Dolan, Mr. Byrne, Mr. Farrell, and Mr. Fry.

Alderman Manning seconded the motion.

Mr. French said they might as well have *old women* on the committee as some of the proposed members. He, therefore, moved as an amendment that the committee should be appointed by ballot.

Mr. Callow seconded the amendment.

Sir John Gray said that if a new committee were appointed they would be obliged to spend as much time in learning the business they should do as the existing committee had spent in learning what they were now about to do.

Mr. French complained that such men as Mr. Carson, who was an architect, were not on the committee, but that some of the members of the existing committee knew nothing about work such as they were to deal with; yet a sum of £800,000 was to pass through the hands of this committee.

The amendment was put, and declared lost.

A division was next called for by Mr. French, but the amendment was lost. A further amendment was moved by Mr. Murphy, "that six of the existing committee should be re-appointed by lot, and the other six elected from the council at large." We think this was a very fair proposition, but it did not please Sir John Gray and his supporters. The Lord Mayor ruled that Mr. Murphy's amendment was quite in order, despite the pretensions knowledge of Mr. Byrne. The clique was drawn to bay on the head of the amendment, which they could not manfully defeat, so Mr. Byrne resorted to the ruse of putting a counter amendment, to the effect "That Alderman Redmond be the chairman of the Main Drainage Committee of 1874." This dodge had the effect of drawing away a number of the members, protesting against being called to vote in so insidious a way. A count-out was, of course, the consequence.

We do not contend that the ballot in this instance would have been wise, but we do contend that the Main Drainage Committee needs an infusion of new blood, and that the time has arrived for displacing some of the members of the present committee, and filling up their places with intelligent and practical men.

The history of the present Main Drainage

Committee is a history that will not bear the light. It is a story of personal aims, incompetence, wasted time, and squandered public funds, from first to last.

#### THE DRAINAGE DISTRICT OF LOUGH NEAGH.

The trustees of the above drainage district—comprising portions of the counties of Antrim, Armagh, Down, Londonderry, and Tyrone—met in the Imperial Hotel, Belfast, on Friday, the 2nd instant. Thomas Hamilton Jones, Esq., D.L., J.P., in the chair.

The minutes of the previous meeting having been read and confirmed,

The secretary (Mr. J. Hancock, J.P.) stated that the rainfall at the Royal Observatory, Armagh, for the year ending 31st October, 1873, amounted to 31.359 in., while the highest water level in Lough Neagh during that period was 12 ft. 6 in., the lowest being 7 ft. 5 in.

After the disposal of a large amount of correspondence and matters of routine, the accounts were examined and passed; the trustees then proceeded to consider a report from the engineer of the district (Mr. W. J. O'Neill), from which it appeared that a sum of £1,242 would be required for works under contract in 1873. The report was adopted.

#### HOME AND FOREIGN NOTES.

The Diocesan Council, Killaloe West, have appointed Mr. Joseph Maguire, F.R.I.A.I., 201 Great Brunswick-street, as their architect.

At the last meeting of the Corporation of Waterford, Dr. Cameron was elected Analyst for the City of Waterford.

Dr. Cameron, City Analyst, has, by a unanimous vote of the Commissioners of Education, been appointed Professor of Chemistry and Geology at the Model Farm, Glasnevin.

**THE HOOSAC TUNNEL.**—This celebrated tunnel is at length finished, so far as complete penetration of the mountain is concerned. The tunnel was proposed in 1825, revived in 1845, contracted for in 1855, attempted in 1856, re-contracted for in 1858, and slowly continued till 1862. In 1863 Mr. Shanley took it in hand, and promised to complete it in less than seven years, for less than 5,000,000 dols., but the whole cost has been about 10,145,000 dols., and it will cost before fit for running trains at least 2,000,000 dols. more. The length is nearly four and three-quarter miles.

**STEEL PENS.**—In Birmingham the number of steel pens made weekly is about 98,000 gross, or 14,120,000 separate pens. Thirty years ago pens were sold wholesale at five shillings per gross; now pens as good, or better, may be had for three-halfpence per gross. When it is remembered that each gross requires 144 pieces of steel to go through at least twelve processes in the course of manufacture, the fact that 144 complete pens can be sold for three-halfpence, after providing for material, paying wages to workpeople, and leaving a profit to the maker, is a convincing proof of the results attainable by the exercise of mechanical ingenuity and division of labour.

**A LUCKY FIND.**—The *Madras Times* reports that some months since a gang of labourers, while engaged in cutting a channel connected with the Strivaiguntam Anicut project, came upon a large copper pot filled with gold ingots and coins. The pot was of large size capable of holding six Madras measures of grain. The probable value of the treasure is estimated at a lakh of rupees. The labourers divided the spoil and made off with it, but the matter soon became public, and the tabildar succeeded in recovering Rs 8,000 worth of coins and ingots, and the quantity of property was mostly recovered from a girl, who ran away from her house with a chatty, which fell and broke, whereby the gold was scattered in front of the officials who were coming to search. The remainder of the property was quietly buried or melted down, and all traces of it are lost. On hearing of the discovery, the collector of the district notified the course to be pursued under the act, but nothing was given up. The treasure recovered was deposited with the civil court, and the case was inquired into after due notification. It was decided that the terms of the act had been sufficiently observed, and that the treasure should be restored to the finders. The treasure was

found near an old avenue leading from what was once the city of Kayal, and it was probably buried some hundreds of years ago. The coins are principally Arabic, but one is European, and this, as far as can be ascertained, is a coin of Joanna of Castile, A.D. 1236. Some of the Arabic coins are still older. One bears the impress of the Mahomedan year 71, another has on it the name of Sultan Saladeen. The Superintendent of the Government Museum has been requested to see if it is desirable to secure any of the coins for the Museum.

#### SANITARY AND OTHER NOTES.

**THE disgraceful state of our streets** has called forth a very just magisterial rebuke, which we have alluded to elsewhere. A few days ago the Lord Mayor, accompanied by the Deputy Clerks of the Markets and the other civic officers and sanitary staff, visited several markets and slaughter-houses on the south-side of the city, and expressed his extreme dissatisfaction at the state of the slaughter-houses, and said that the only way to keep them in a cleanly state was to have them properly flagged or asphalted.

**In re Milk Adulterators,** fines have been inflicted on the following in the Southern Divisional Court: John Flood, 138 Francis-street, was summoned by Mr. O'Connor, sanitary inspector, for having on the 19th November, sold milk adulterated with 100 per cent. of water. Fined £12, and £6 costs. Mary M'Donnell, New-row, South, was summoned by the same officer for having sold milk adulterated with 80 per cent. of water. Mr. O'Connor stated that on two previous occasions he had the milk sold in the defendant's shop tested, and it was then found pure. Fined £5, and £5 costs. His Worship remarked, during the hearing of the cases, that this offence was a very serious one. It might not only kill infants, but it would also generate disease. Mr. Bunis, who prosecuted in each case, said it was because it was such a fraud upon the poor that they were carrying on so severely these prosecutions. His Worship said if he had the power he would send every offender to prison, without the option of a fine.

**BRAY AND WICKLOW.**—At the Quarter Sessions, when addressing the Grand Jury, the chairman said he would take that opportunity of drawing their attention to the disgraceful state of the court. They were all obliged to come there, and sit for a very long time in this cold weather, and no attempt whatever was made to heat the building. It was most incumbent upon the proper authorities at once, or as soon as possible, to see to the comfort of those engaged in the administration of the law. The grand jury at quarter sessions had not the power to remedy the cause of complaint, but the grand jury at assizes had, and he hoped they would see to the matter.

At the last meeting of the Monaghan Town Commissioners, the town sergeant "made an application for leave to purchase a horse and cart to remove the mud from the streets in winter, and to water the streets in summer"!!!—*Northern Standard*. [The matter was referred to sub-committee No. 63.]

#### TO CORRESPONDENTS.

**FIREPROOF CONSTRUCTION.**—All persons interested in this question—and there are many besides those professionally connected with the building art—will find some useful hints in Mr. Owen's paper, which we print elsewhere.

**TELEGRAPHIC.**—The Americans are far ahead of Great Britain in their telegraphic mechanism. They can wire messages at the rate of 1,200 words or 6,000 letters per minute, while the most perfect English instrument and operators are unable at present to exceed 200 letters per minute.

**BROOKS, MAYOR.**—Our City Magistrate has already evidenced a spirit of impartiality and fair play in matters in which some of his predecessors in office exhibited a party zeal.

**GOBAN SEER.**—Your letter will appear in next issue. Perhaps by that time we will have leisure to re-consider the subject, and speak more at length.

**TURF IN LONDON.**—Peat is at present selling in the streets of London for one large sod a penny. Whether it comes from the bogs of this country or the fens of the sister kingdom, we cannot at present say. Is it not something like sending coals to Newcastle? Swift once told his countrymen that they should burn everything that came from England but the coal. *Punch* might now retaliate.

**SCRUTATOR.**—We are almost tired of drawing the attention of the Civic authorities to the scandalous infringement of the footways by traders in every part of the city. If the portion of the footway in Lower Abbey-street (to which you have directed our attention in your letter) is allowed to be used for trade purposes by the parties, who have recently erected permanent obstructions in the shape of iron railings set in granite, we see nothing to prevent the shopkeepers in Sackville-street from similarly monopolising the half of the footway, in defiance of all law. You should get up a deputation to wait on Committee No. 1. Stipulate beforehand that the Press will be admitted.

**ERRATUM.**—On page 12, col. 3, line 23, for "quoins" read "groun."



# The Irish Builder.

VOL. XVI.—No. 339.

## Our Water and Waterworks.

THE Local Government Board enquiry in re the Corporation Waterworks, which took place a few days ago in this city, was an event of some value, and, in view of the future, it is well that the evidence elicited on either side should not be lost sight of.

We are earnest advocates, and have always been, of sanitary measures, and as such we are in favour of a constant supply, for health and cleanliness is dependent upon it. We have differed with the Corporation on many points, and we fear that for a long time to come we will have to differ with that body. We have also differed with the Chairman of the Waterworks Committee; but, while not subscribing to many of his arguments on Corporate matters, we cannot deny him his meed of praise in connection with the Waterworks of Dublin. We look upon the powers sought by the Corporation in a different light from the Chairman of the Waterworks Committee, yet we are anxious to see a constant supply; and, short of a constant supply, we desire to see no waste.

The Waterworks of Dublin have been, none will dispute, a most costly affair, and there is no knowing when the burdens connected with it will cease. This city is suffering under a dead weight of not a standard, but a steadily-increasing taxation; nearly all the available rates or sources of Corporate income are in a manner mortgaged for loans. Can a trader whose business is bad, and has a tendency to grow worse, better his position by dabbling in repeated loans? It is with a Corporation the same as an individual who has lived beyond his income by indulgence in extravagant taste; nothing can retrieve the fortune of either in a respectable way, save a resort to economy. Economy is the salvation of individuals, public bodies, and nations. Economy will lift a man or a country out of debt; and this simple word of economy is what the Corporation of Dublin should have used as its motto twenty years since. Had it done so, it could have shown a fair face and a bold front, and in this year of grace would have stood as one of the foremost municipal bodies in the three kingdoms.

On the action, *per se*, the Corporation have taken for the obtainment of a provisional order, little need be said. It is a more direct preliminary step than they have ever taken before to obtain what they require, but the inevitable bill is still necessary; an act must pass and be made law, and parliamentary costs, not a little, will be the result. We firmly believe that very large expenses could be saved to the city, the water works enlarged, a constant supply secured, without going to parliament, and without, of course, giving extra and what may be most dangerous powers to the corporate body.

The value of an honest opposition was illustrated during the late enquiry, at least

in the instance of the petitioners who represented the citizens. The petitioners, who had the interests of the ratepayers at heart, requested a full enquiry into all the expenditure of the Waterworks Committee, as they understood there were numerous expensive and useless offices in connection, which, if abolished, and a more economical system adopted, would obviate the necessity of seeking for additional borrowing powers. The petitioners also stated that they wished to oppose the granting of any additional funds for the maintenance of the Fire Brigade, on the ground that the brigade was more expensive than towns like Liverpool, Manchester, or the city of Glasgow, notwithstanding that there was always a high pressure of water available. We would much regret to see the efficiency of a fire brigade in any way impaired, for it is an indispensable body, when properly organised. We take issue with the Corporation on the nature and the extent of the powers they strive to obtain, and we are opposed to the granting of these powers without better guarantees being forthcoming.

The Corporation seek for an amendment of the Dublin Waterworks Act of 1861, for the following purposes:—First—Power to borrow and re-borrow capital to enlarge works, to extend telegraph lines and connect existing lines, and for the purposes of the act, on the security of existing rates, the amount to be borrowed not to exceed £50,000. Second—Further powers of diminishing the waste of water. Third—Power at the discretion either to stop the extra quantity of water taken by the townships, or to charge the commissioners for the excess taken. Fourth—Power to apply out of the Public Water Rate an additional sum to the purposes of the Fire Brigade. Fifth—Power to define and alter the limits of the act, and—Sixth—Compulsory power to take lands for the purposes of the act.

Certainly if the Corporation of Dublin could obtain all these powers, it might, were it inclined, commit through its officials a number of very despotic acts. We think the Corporation has already ample power to control any waste; and the prices now paid by the townships and intended to be enforced under the new act, should it become law, are entirely disproportionate with the population of the townships. The richest district would be paying a great deal less than the poorest. This aside, where is the *bona fide* security that the Corporation propose to give for the additional loans? We have no reliable evidence of the existence of a surplus of £4,000 a-year. We do not believe that the Corporation has at this moment any available surplus to answer as a security. The income of the City Estate is heavily weighted at present, and, should the Corporation succeed in their intentions, and obtain the £50,000 asked, the greater part of that sum will go the way that other loans have gone, and show very little practical results behind it. Kingstown, as an opponent to the Corporate measure, gave good reasons, and we think the arguments advanced on behalf of that township were strong. There is such a thing as paying too much for even a good article, particularly when it is for the accommodation of other persons beside yourselves; and Kingstown afforded us instances worth remembering.

Before seeking for enlarged powers in respect to the Waterworks and other sanitary

measures, the Corporation ought to have begun the work of retrenchment in its own departments. It is an undeniable fact that there are at present many useless offices in connection with the Corporation, and the friends of those in office are yearly driving a trade in proposing and voting for an increase of salary to officers whose offices or sub-offices should be abolished. From the City Treasurer downwards there is a reform needed, and the whole of the departments need to be re-organised. If this reform was carried out there would soon be an available surplus, and the Corporation would not need to go to Parliament to seek enlarged powers or a loan of £50,000.

We have only skimmed over the surface of the Waterworks question at present, but will return to it, as it is one of importance to the citizens from more points of view than one. We have in Dublin any amount of taxation, and a desire to increase the load, but we have little honest representation.

We know Dublin long and well. We have had an experience of upwards of thirty years of Corporate administration in this city. We know the worth of Corporate promises, and are thoroughly aware of the results of Corporate work. While advocates for the sanitary and social improvement of our city, we are stern and consistent opponents to an increase of taxation that could be avoided. We unhesitatingly say, the necessity for a loan by the Corporation can be obviated by measures of economy, and that too without impairing the efficiency of our local administration.

## NOTES ON THE REGISTRAR-GENERAL'S RETURNS.

It is not our intention to enter into an analysis of the quarterly summary of the weekly returns of the Registrar-General in respect to Dublin, but we cannot help noticing some matters therein which ought to attract a little more public attention than they seem to do. There is a general belief entertained by many that there is a third and even more females born into the world, or at least living upon the world, than males; at least in this country the belief in the great majority of the female element is and has been proverbially strong. We have noticed for some time past, if we remember aright, that the difference between the number of male and female births is gradually growing smaller and smaller, and at times the males, according to the returns, exceed the number of the females.

In the last quarterly summary we find, during a space of fourteen weeks, the number of births (boys) registered was 1,088, and 1,050 girls, being equal to an annual ratio of 1 in 40, or 25 in every 1,000 of the population. In respect to deaths, it may be observed that the respective numbers of males and females were nearly alike—males, 1,014; females, 1,016, affording an annual ratio of 1 in 42, or 24 in every 1,000 of the population of 1871.

Reflection might well be indulged in on the head of the birth-rate, but we will leave it to more philosophic and inductive minds. The registered death-rate appears higher on the south side of the city than the north. On the north side it amounted to 692, or 24 in every 1,000; while on the south side it was 1,026, or an annual mortality of 28 in every 1,000. Of course all are aware in this



city that the population is more dense on the south side than on the north, and we may add also that there are a great many more foul courts and homes south of the Liffey than the north.

In respect to the number of deaths occurring in public institutions, particularly in workhouses, the numbers given are suggestive of serious thought. Of the 2,030 deaths registered in the Dublin district during the quarter, 317 occurred in the various hospitals, prisons, and lunatic asylums, 131 in the North Dublin Union Workhouse, and 158 in the South Dublin Union, making a total for public institutions of 606, or 30 per cent. of the total deaths. We say boldly that there is too much reason to fear that the workhouse poor do not receive adequate medical attention. The number of deaths that take place yearly in our workhouses, particularly of the very young and the very aged, is altogether alarming. While holding the opinion that the poorhouses should be only for the housing of the very young or those incapacitated by age or infirmities from labour, yet we desire to see them, as long as they are needed, used and managed in a creditable manner. Let the able-bodied be found in work, and made to work, and let the young and the aged be properly cared for.

The Registrar's Return shews clearly what neglect of the public health produced, for the diseases that proved fatal are in most cases the result of local neglect. Scarlet fever caused 151 deaths, or 1 in every 13.4 of the total deaths registered. In the preceding quarter there were only 27 deaths from this disease registered, and in the fourth quarter of 1872 only 42. Fever, we perceive, has been very prevalent, 72 deaths resulting from it, being 14 over the number of the preceding quarter. Of the deaths registered last quarter, 16 were from typhus, 1 from cerebro-spinal, 43 from typhoid, and 12 from simple fever. Of other diseases—often also resulting from sheer neglect,—32 were caused by croup, 30 by whooping cough, 13 by measles, 12 by diphtheria, and 4 by quinsy. Fifty-eight deaths arose from diarrhoea; 133 children died from convulsions; 53 were ascribed to paralysis, 21 to apoplexy, and 8 to epilepsy. We find bronchitis caused 287 deaths, or 1 in every 7 of the total deaths registered; and pneumonia or inflammation of the lungs caused 54. Heart disease proved fatal in 97 cases, aneurism in 5, and inflammation of the heart's covering 3. It is as well that we should enumerate the remaining cases, so that the sum total of the quarter will be seen. Thirty-six deaths are put down to liver disease, 3 to inflammation of the liver, 2 to jaundice, 12 to Bright's disease, 1 each to inflammation of the kidneys and of the bladder, and 21 to kidney disease unspecified. Two hundred and three deaths, or 1 in every 10 of the total, resulted from phthisis or pulmonary consumption, 31 from mesenteric disease, 33 from hydrocephalus or water on the brain, and 19 from scrofula. Cancer—that somewhat mysterious and terrible disease—proved fatal in 49 cases. In the chapter of accidents, 59 deaths are registered—20 from fractures and contusions, 22 from burns or scalds, 13 from drowning, 1 from poison, 5 from suicide, and 4 from homicide.

For such a city as Dublin the list of deaths from zymotic or preventible diseases and others is large. When we take into consideration the ages of the persons whose

deaths have been registered during the quarter, the statement gives rise to no less serious reflections than those suggested by examining other portions of the returns. Death of course strikes indiscriminately, but there exists no particular reason why such a heavy percentage of the youth of the country should be cut off. Want of paternal care and hereditary weakness, we fear, is largely supplemented by causes arising from the neglect of the public health. Of the 2,030 persons whose deaths were registered during the quarter, 863, or 42.5 per cent., had not reached their twentieth year. Of this number, 656, or 32.3 per cent. of the total, were under 5 years old; 149, or 7.3 per cent., were 5 and under 15; and 58, or 2.9 per cent., were 15 and under 20; 297, or 14.7 per cent., were between 20 and 40; 349, or 17.2 per cent., between 40 and 60; 440, or 21.6 per cent., between 60 and 80; and 81, or 4.0 per cent., had attained their eightieth year. Six persons are returned as nonagenarians, and one case—that of a man—is registered at the full cycle of 100 years old.

Of late we have read of many Irish deaths of women and men at 100 and upwards. It would be as well that the statements of the friends or relatives of the deceased were tested, to set at rest the doubts that exist respecting centenarian lives. Old men and women who live to eighty years or upwards are prone to make mistakes, consciously and unconsciously, in relation to their exact age. Very old age often begets a sympathy for the poor in the hearts of those who hear the record from the lips of the octogenarians and centenarians themselves, and we fear at times a little deception may be practised. Well-authenticated instances, however, yearly occur of those who have reached a very advanced age in this country.

If the proportion of births of both sexes that at present exists in Dublin continues for a few years longer, the Irish ladies will not run short of husbands—that is, supposing the "lords of the creation" desire to have "better halves." The "domestic drudges" will turn over a new leaf with their mistresses, and "high life below stairs" will be inaugurated in substance and in fact. Well, there is a reform needed in our kitchens as well as in the streets, whether our maids are unmarried or not; but it is in the interest of their own safety and the public health. Whether they are displeased or not, this reform must be carried out.

A word in conclusion. We have a strong suspicion that throughout this country as well as in the sister kingdom, there are a number of births and deaths that take place that are never registered, and that many deaths are put down to causes which did not occasion the deaths recorded, but were owing to other suspicious circumstances.

#### THE ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.

THE DRAWINGS EXHIBITED ON THE 6TH ULT.

(Continued from page 17.)

ONE of the chief features of the late exhibition at the *conversazione* was the series of designs submitted in competition by Messrs. McCurdy and Mitchell and Mr. T. N. Deane, for extensive new buildings in Trinity College. We would say, in the first place, that though these as drawings and designs are of the greatest interest to professional visitors, and a great acquisition to an exhibition, they, as drawings submitted in a limited competition between two architects only, are precisely what such drawings ought not to be. In a sensibly-conducted limited competition such elaborate and unnecessarily costly drawings should never be seen, and the mere rivalry which induces architects to fight their battles with such showy weapons is to be condemned. However, those who enjoy the contemplation of them as works of

art—free, gratis, and for nothing—have not much right to complain.

These designs are for a great reading-room in connexion with the library, and a chemical school or laboratory. We scarcely feel at liberty to discuss the comparative merits of these competitors, the matter being to some extent to be considered as *pendente lite* still. We understand modified or amended designs from both gentlemen are now before the board of T.C.D. We may say, however, that Mr. Deane is, as usual, original and picturesque—so much so that we do not easily at first reconcile his creations with the staid *genius loci* of sober T.C.D. They would certainly, if built, be sadly meretricious alongside the chastity of Botany Bay. His group of chambers proposed to face the bell-tower would be a fine addition to the architecture of the College, if, with the same details, the whole design were cast on a more imposing scale and grouping.

Of Mr. McCurdy's several drawings, perhaps the most pleasing to a sober-minded architect is the one-storey colonnaded design for a laboratory. The style is Classic, with that "neo-Grec" feeling which finds favour at Munich, and, nearer home, with the Glaswegians. Coming still nearer home, we could almost imagine that this refined and truly monumental work had been contributed from some other world, and by the shade of one who was known among men as John Skipton Mulvany. Young men should study such design as this. The wheel of fashion is rapidly revolving, and an insatiable public will soon be crying out for pure Classic Art. Then will the public find a school of architectural savage barbarians who will groin you a cathedral roof if you will, but could not tell you how many minutes go to make a module. Let them be warned in time, and let them reverently stow away in their family muniment room (if they have one) the folio edition of that now discounted authority, Sir William Chambers—more irreverently known by older architects when they were yet youths, by the "office" surname of "Cocker." That folio will come to the front yet, and be at a premium. People will yet appreciate in it the subtle link of sympathy which will harmonise the poetry of architecture with the decimal coinage.

Mr. Deane does still more for the interest of the exhibition in his series of charming sketches in Normandy, which may be said to have taken the general professional public with surprise who were not aware of the artistic versatility which Mr. Deane possesses. It is to be hoped that these will reappear at the Academy Exhibition, as they are calculated to give much pleasure to all sections of the public.

Near Mr. Deane's sketches were exhibited some drawings of unpretentious appearance, which excited considerable interest among the more antiquarian visitors. It is to be presumed that these are to be accepted as a sample of what H.M. Board of Works propose to do in cataloguing, depicting, and recording the present state of those ancient monuments which the Irish Church Act has transferred to their hands. The universal verdict of all who examined these drawings was one of unqualified approval and satisfaction, and a hope was generally expressed that the series would be continued. The drawings happily combine some artistic skill with business-like intelligent record of condition and dimensions. A volume composed of such as these would be of inestimable value to those future generations of Irishmen who, as Irishmen have ever done, will love to contemplate the past of their country, and see what record of it was written on the face of the land in the year of grace 1874. Not one year too soon has this task been undertaken. We unhesitatingly assert that this present generation is witnessing a greater decay and elimination of national monuments than any which has preceded it.

With these remarks we must, from pressure of space, conclude a short notice, continuing our observations and impressions made by the exhibition in another number.



## TWO DUBLIN CHARACTERS OF THE NINETEENTH CENTURY.

THE M'ANASPIES, PRACTICAL ARTISTS, ETC.

WE have had, and perhaps still have, the O'Connor Roes and the O'Connor Dons, the Macgillcuddys of the Reeks and the O'Donoghues of the Glens, and several other mighty sept, too numerous to mention, from the days of King Dathi down to the days of the King of Mud Island, who was not the least remarkable of our royal dare-devils. Every one of them held his own as long as he could, and it is not to be expected that the lineal representative of the house of M'Anaspie would tamely submit to be snuffed out by a race of "monkeys or nincompoops."

Pat M'Anaspie, upwards of thirty years since, was a well-known employer and practical mechanic to boot. He had a brooding brain, a ready utterance, a cunning hand, and a pocket full of patents, specifications, projects, and inventions. He knew his own business well, and had a good smattering of everybody else's business. He came from the hardy northern province, we believe, and the most shrewd or acute Dubliner could not outwit him. Pat M'Anaspie had a public spirit larger than the fortune he could ever command, hence he burned his fingers with enterprises that worked himself but small good, while largely benefitting others who had more prudence but less brains. Pat was the embodiment of a compound of common sense and practical sagacity with a strong dilution of fancy, and he was too sanguine in temperament as to the present or future, and drew too largely on his possible income instead of his positive one. Poor fellow! we chatted with him on both sides of the Channel a quarter of a century ago, when many of his early projects had collapsed, his inventions pirated, and his fortune as well as his health wrecked. Through the streets of Liverpool he walked as erect as in this capital, full of the same enthusiasm, and hopeful that a day would soon arrive when his darling projects would be realised for his own and Ireland's sake. Before his last heavy affliction came over him, he was a stern speaker and advocate for native manufactures and industries; and, however men might differ with him as to details, his arguments and reasonings were expressed with a self-conviction, and accompanied with a gesture and manner, that went far to convince others. He breathed his last under the shadow of the walls of what he once hoped and struggled to make a sort of "School of Art" from his own point of view; and the building is now, and has been for years, pointed out by many as "M'Anaspie's Folly."

The house of the M'Anaspies lives still in the person of characteristic Tom, who it is no untruth to say is "a Dublin character of the nineteenth century." Tom M'Anaspie is better known to the present generation than even his late brother. He also is a practical mechanic, and inherits a good deal of the shrewdness of Pat. He does not hide his talent in a bushel; he is conscious of his theoretical and practical knowledge, and, despite the sneers of a "servile Press," he patronises the journalism of Dublin with the following characteristic advertisement, which is unique in its way:—

"The M'Anaspies are unimpeachable. The M'Anaspies disregard either monkeys or nincompoops, who would and have attempted to put a false face on them or their profession, and beat them for being ugly as to reputation. First, as artists; second, as stucco plasterers; third, as general statists; fourth, as asphalt manufacturers and workers; fifth, as patentees; sixth, as promoters of the schools of design in this empire; seventh, as authors of a work dedicated to the late Lord Brougham, proposing to raise 85 millions per year on two items, as well as an irresistible army of two millions of well-disciplined and fighting men, and that without one farthing of outlay to the State,

prevent invasion or civil commotion between capital and labour, and give every man of servitude, skill, and ability the right and full benefit of the trade they or he served their life-time to, as well as to further prevent jobbery and robbery to be any longer continued between officials and capitalists; and last, not least, to secure the moral worth of all, so as to protect and maintain her precious University, and both law and order; eighth, also the cause of doing away with that obnoxious law that disgraced the statute book of this empire—I mean the City Attachment Law, that managed both perjury, bribery, and robbery.—The M'Anaspies, and Sons, and even daughters, and, with all her faults, Mrs. Mac, the true descendant of nobility and princes."

It is not always pleasant to have to write of the living; but, as Tom is of a forgiving nature, we would not hesitate writing his obituary and epitaph in advance of his demise. Tom is a bit of a lawyer as well as a practical artist; and, though his better half has given him some "curtain lectures," "with all her faults he loves her still." Why not, is not Mrs. Mac the true descendant of nobility and princes! and as for her sons, to use the language of Curran, "the maker's name is stamped upon the blades."

The American, English, or Continental visitor who passes through Dublin without visiting Tom's studio and workshop in Scagliola-street, will have missed one of the sights of this remarkable city. Civility is the only passport needed, and due appreciation of the works, which the affable artist will willingly show and painstakingly explain. If the artist discerns you are of a truly appreciative disposition, he will introduce you to the inner arcana of his studio, where desks, cupboards, and shelves are weighted with a legion of casts, models, drawings, plans, specifications, estimates, testimonials, and "Opinions of the Press" on The M'Anaspies' triumphs of the last quarter of a century and upwards. Take off your hat, if not in homage to the man, at least in consideration of the industrious spiders, who have no right to be disturbed or have their webs broken. Don't too often interrupt the sensitive disciple of Classic and Celtic art while he is endeavouring to make you understand the mysteries of designs. Don't be impatient to conclude your interview, or the artist's eye-glass will not slide into its accustomed wrinkles, and a delay is sure to occur until the natural adjustment takes place. A long summer's day would be scarcely sufficient to see all the artist's original designs for public bridges and triumphal arches; statues, equestrian and pedestrian; and public fountains and wayside pillars. If you have an "order," give it to "The M'Anaspies"; it matters not whether you desire the head of the blind Homer or the blind Zozimus, Diogenes in his tub, or Sir John Vartry in his boots, the genius of Phidias and the fire of Angelo will be kindled in an instant, and the work will be sketched while you would say "Jack Robinson." There never was a god or goddess, mermaid or siren, centaur or salamander, banshee or leprecaun, fetch or fairy, phooka or devil mentioned in Lempriere's Dictionary or outside of it but the Milesian "M'Anaspie" could model. The best royal arms in stucco ever executed in Ireland was stolen from the studio of our unique Dublin artist, and the liberal Government, with a shabbiness that does them infinite discredit, neither paid the artist for his model nor allowed him the least percentage on the numerous casts which they allowed their Castle tradesmen to make of it. This is clear evidence that there is no such thing as "justice to Ireland," and that none need be expected from a race of "monkeys or nincompoops."

We had written thus far when the following advertisement caught our eye in the daily papers:—

"Rather a novel scene between a lady and an editor—see the London *Daily Telegraph* of the 22nd inst., as well as a novel occurrence between the scissors of a public journal and an artist this day, and which will be hereafter explained.—The M'Anaspies, plasterers, plasterers, plasterers, &c., &c., &c.—Hurrah for a plasterer, who lives at 31 Great Scagliola-street these 48 years.—The M'Anaspies and Sons."

After reading, we were at some trouble to hunt up a file of the *Daily Telegraph*, where we found a telegram from Dublin couched in words to the following effect:—

"A few days ago a stucco-plasterer belonging to this city applied at the police-court for a summons against his wife. The case was reported in the Dublin papers, and the wife called upon the proprietor of one of the weekly papers to-day in reference to the matter. She did not receive what she considered a satisfactory explanation, so she horse-whipped the proprietor."

Goodness gracious! was it the "heroic woman" with all her faults that vindicated the fame of The M'Anaspie? But who was the journalist? The telegram telleth not, but we shall live in hopes of seeing it next year in the "Annals of Dublin" in Thom's Directory.

Wonders follow wonders. Our eyes next alight upon our artist in the character of an auctioneer. There is a saying, if you want your business done well, do it yourself; and Tom appears to have come to this conclusion, as the annexed announcement would seem to shew, although there is "many a slip 'twixt the cup and the lip," and that "all that is in danger is not lost." The auctioneer's hammer is raised often before the fatal word "gone" is pronounced:—

"AUCTION.—The M'Anaspie will sell in person all his statuary and stock in trade, moulds, &c. The M'Anaspies are the M'Anaspies, and not goulie or pervers, nor do they pander or seek patronage on the back stairs of authority. The M'Anaspie are the M'Anaspie, and there are no other M'Anaspies in this empire or elsewhere but The M'Anaspie, who will sell by auction all The M'Anaspies' stock of statuary and stock in trade, on the 17th of February, at 31 Great Scagliola-street, at The M'Anaspie's and Son's, who are general stucco plasterers, asphalt manufacturers and makers, patentees, as well as the designers of the O'Connell Testimonial Monument, and authors and promoters of the schools of design in this empire, and done away with in the city that abominable law the Attachment Law.—The M'Anaspie and Sons, &c., &c."

The above, perhaps, may be read as "Positively the last time"—a clearance sale before the spring fashions and the new classical costumes and models are introduced. The inscrutable ways of Tom's inventive genius are not to be measured by common standards. There must be some typographical errors perpetrated in the above advertisement by the vagabond printers, whom Tom for the last half century has helped to live. What does the word "Goulie" mean? Perhaps it was "ghouls" the artist wrote. The newspaper compositors of the Press of Dublin ought to be well acquainted with Tom's caligraphy by this time, for many a fierce letter of his have these "galley-slaves" set up. The late Horace Greely, of the *New York Tribune*, never eclipsed Tom in the legibility of his "copy." It is only shallow thinkers and little minds, lawyers' clerks and municipal scribes who live on public money, that write in a vulgar manner; but it is the province of a genius, and becomes the dignity of the true artist, to exhibit originality.

Long may "The M'Anaspie" live, to help himself and the Press of Dublin, the scourge of the local authorities and the terror of police magistrates, whom he more than once snapped his fingers at, as much as to say, "I don't care that about you." Thirty years since, as boys in our teens, we stood in mute astonishment and gazed with a schoolboy wonder at the mighty ogres and creatures that crouched or stood as large as life within the palatial gates of Scagliola-street. Since then over many a hundred miles of the world's frontiers we have walked, with bounding hearts and bleeding feet betimes. The thirty years are gone, the schoolboys are mature men, friends and relations are in their graves, the city is changed, but "The M'Anaspie" lives, and though age has withered his brow a little, it has not wintered his heart. There are arrows still in his quiver, and the race is not extinct. CE.



## THE BUILDING STONES OF IRELAND.\*

(Continued from page 20.)

### CHAPTER V.

*Oolite—Limestone; its Composition, Distribution, Durability, Upper and Lower Formation, Intermediary—Uses of Limestone—Calp—Chalybeate Springs near Dublin—What is Lime?—Mortar—Caverns in Limestone—Stalactite and Stalagmite—Travertin of Italy—Sulphate of Lime in Boiled Water—Marbles.*

**OOLITE**, a carbonate of lime (of which the Bath and Portland stones of England are familiar examples), is found only in Antrim and Derry. Its name is derived from two Greek words signifying the roe or ova of fish, which it is not unlike, being composed of small grains of sand closely cemented together by calcareous matter. Being easily worked, it is most useful for decorative purposes, and hardens by exposure to the weather; but it does not occur to any extent in Ireland. Like all other formations, it is divided into different groups, among which the argillaceous laminated stone called *lias* is found, which, from its fine-grained texture, is much used by lithographers.

Limestone or carbonate of lime is by far the most largely-developed rock in Ireland, and is an accumulation of fossil remains upon a scale of magnitude so vast, and dates back so far into primeval ages, as almost to exceed our powers of belief. There are few limestones in which these remains cannot be discerned in condition more or less perfect. Generally speaking, as marble, it has lost its stratification, and in some it has become crystallized—as in the purer examples—from being subjected to the action of subterranean heat, which has totally obliterated the traces of such remains. The limestone formation extends through the entire central districts, stretching from Fair Head to Dingle, north and south, and from Dublin Bay to Galway Bay, east and west, and occupying a superficial area of over 10,000 square miles; and there is no county except Wicklow where it is absent. Granite has often been described as the most enduring of stone, and this to a certain extent is correct, though applying only to limited examples; but limestone, as a general rule, is a far more lasting rock. We have only to refer to the numerous remains of structures throughout the country in proof thereof, many of them still preserving their ornamentation in sharpest outline.

The limestone strata consists of three distinct beds, formed at widely different periods in the history of the earth; and these consist of the upper, the lower, and the intermediary, called *calp*. The lower formation is the most generally diffused, having been upheaved long ages ago through the other intervening stratified rock; it varies in colour and in texture from the light grey crystalline (as at Sheephonse, Drogheda), the light blue (of Galway, King's County, and Carlow), to the deeper shades of *calp*, and the Galway, Kilkenny, and Carlow marbles, together with the beautiful variations of green, red, and yellow, until it eventuates in the purest white.

Carbonate of lime, either as limestone or in its different varieties of marbles, is the most important, the most useful, one of the most interesting, and possibly the most valuable, production of Ireland, whether as considered in its appliances to agricultural purposes, its uses in arts, manufactures, and medicine, or as limestone in its various applications to building, either in the form of rubble stone, as the main constituent of the structure, the materials of the ornamentation which adorns it, or in its calcined state, the cement which consolidates it together, and which latter, if judiciously treated, restores it again as material to its original state.

*Calp*, or the intermediary formation, is limestone in its most impure state, never-

theless is highly valuable for building purposes; it is extensively developed throughout the country, but more particularly in Dublin, Cavan, Fermanagh, Leitrim, Roscommon, and Sligo. Wherever it occurs it is largely used for rubble work, and frequently employed as ashlar. It has one great defect—if not laid in its bed of deposition it speedily decays, falling away in laminated scales; and this will continue even when covered by a cemented or composed surface, if exposed to atmospheric influences.

*Calp* is of much deeper colour, much closer texture, and considerably harder than ordinary limestone, but frequently of soft slaty formation, and occasionally shot with veins of crystallized carbonate of lime, which form the white streaks observed in this stone. Iron also exists to a small extent, and is sometimes seen in the form of pyrites, the glittering substances occurring in a few instances in some of its beds; iron is occasionally combined with sulphur as sulphuret of iron, and it is from this source the chalybeate springs arise which occur in it. Several of these springs exist in the neighbourhood of Dublin, particularly in the valley of the Liffey; and there was one many years ago at Portobello, which has latterly given rise to much discussion. But the disputants seem to be unaware that sulphuret of iron in a quarry is not inexhaustible; the spring may remain, but the vein it has permeated through may long since have been washed out.

The origin of limestone is very remarkable, and, as we have already shewn in Chapter I., it is a deposition of terrestrial matter carried down by rivers to the depths of the ocean, covering over the remains of shell-fish and coral animals to which generation after generation had contributed their respective shares, where they arrived at great thickness and solidity, until at length they became hardened into rock by the infiltration of water holding carbonate of lime in solution, colouring matter being imparted to it by vegetable debris contained in the terrestrial matter above mentioned. But all these shells, &c., being composed of lime, and as they must have existed ages before what we now recognize as carbonate of lime was produced, the question naturally arises, What is lime? Lime, then, is an earth, the oxide of the metal calcium, and exists abundantly in sea water; so also does carbonic acid, and it is generally allowed it is to the presence of both the formation of sea-shells is due, and from this source carbonate of lime owes its origin.

It is altogether unnecessary here to describe the process by which carbonate of lime is converted into hydrate or slaked lime; but it may be of importance to remark that mortar used for building, if properly treated, and made with pure sand, will, from the slow absorption of carbonic acid from the atmosphere, be again restored to its original form of carbonate. We have numerous instances of this in the ancient buildings throughout Europe, but to those who feel an interest in this subject we refer to the paper "Why Mortar Cements," written by the author of these chapters, and given in the *IRISH BUILDER*, January 1st, 1871. We have stated that limestone is most durable; but a casual observer passing through districts occupied by it will form opposite conclusions in observing its water-worn aspect throughout the country. In the lower lake of Killarney this is particularly observable, where the stone has assumed every variety of fantastic shape, occasionally looking like gaunt spectral forms rearing themselves above the surface of its waters; but it is in subterranean rivers and caverns where its disintegration is shown upon a scale of vastness, which many will scarcely believe is occasioned solely by the solvent power of water. Carbonic acid will dissolve the hardest rocks, and every stream flowing through a limestone formation holds it in solution in considerable quantity; and, it is curious to remark, that the same power which produces limestone acts inversely, but

only again to reproduce it upon an infinitely more extended scale in the depths of the ocean. The limestone formations of Ireland entirely occupying its lower levels form the beds of numerous rivers, and every fissure in the rock which allows water to permeate becomes a source whence underground water courses are maintained, if lower levels are accessible; and in this way caverns are excavated in the solid rock, and rivers alter their courses underground.

We have many remarkable examples of subterranean rivers, particularly in the County Galway. The drainage of Lough Mask into Lough Corrib is of this character in the streams surrounding the village of Cong. Outside Oughterard, in the same county, the river Feogh has percolated underground, and formed its course into Lough Corrib, passing underneath the ruins of Aughanure Castle. There are numerous such instances throughout Ireland, but this chapter would be extended to too great length were we to describe all.

The caverns of Mitchelstown, on the border of Tipperary and Cork, formed in the limestone rock, and covering an average surface in their various chambers of 700 ft. by 600 ft., exhibit the extraordinary power of the percolation of water; and again in its restorative qualities in forming stalactite and stalagmite, the magnificent columnar examples of these formations throughout these caverns almost defying description; the prismatic colours which they display by torch-light must be seen to be appreciated.

Stalactite and stalagmite are produced by water holding carbonate of lime in solution, percolating drop by drop through the overlying strata from the roofs of caverns in limestone districts, the stalactite hanging down like icicles; while the dropping underneath from which, when consolidated, is called stalagmite, the water evaporating, leaving behind successive crusts of carbonate of lime. Stalactite and stalagmite eventually unite, producing column after column, sometimes clustered and sometimes isolated, which, when hardened by age and absorption of carbonic acid from the atmosphere, produce variously-coloured stone, according to the mineral character of the veins the water which produced them has permeated through.

In volcanic countries petrification is produced in much shorter time than in our climate, the celebrated Travertin of Italy (according to Lyell) becoming "a solid stratum of stone about a foot in thickness in four months"; it is hard and crystalline, and yet it is only a deposit from the water of springs holding lime in solution. Where these springs exist, a very beautiful and highly-interesting method is devised for producing works of art in stone. The streams containing the lime are diverted and made to pass over falls, so as to produce exceedingly fine spray. Moulds of suitable material are then hung within its reach, and after the lapse of a few days they are completely encrusted in stone, with every line as perfectly drawn as in the original, but upon an enlarged scale.

Before the introduction of the Vartry system into Dublin, the incrustation of lime in vessels used for boiling water was well known, forming a solid mass which, after a short period, became almost impossible to remove. The canals which supplied this water, running through limestone districts, held a large quantity of carbonate of lime in solution; also sulphate of lime from the springs rising through the *calp* formation in which portions of their courses lay, being afterwards exposed in the city basins they imbibed sulphuric acid from the smoky atmosphere; and it is possible that these incrustations, if collected, could have been converted into Paris plaster.

We have already given in Chapter II. some remarks on Irish marbles, with an extract from Sir Robert Kane's "Industrial Resources of Ireland," shewing where they are obtainable; and, it may be, we are indebted to the able writer's valuable notes for the impetus

\* Written for the *IRISH BUILDER*, by W. H.



given during the last few years to the art uses of Irish marbles, a considerable home and export trade being now established in them by an eminent Dublin firm.

(To be continued.)

## CORRESPONDENCE.

### ARCHITECTS AND BUILDERS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—“An Architect,” on whose former letter I offered some remarks, is quite right in thinking that I am nearly of the same opinion as himself on most of the points he has raised. He asks, however, in conclusion, would he be justified in adding C.E. to his signature, on the strength of having an uncle a county surveyor? “An Architect” being “naturally of a singularly modest and retiring disposition,” I will answer him on that head. It is not necessary in these open competition times to have a relative in the profession for the purpose of adding his calling to your own. By all means let “An Architect” add C.E. to his door-plate, and M.R.I.A., F.R.S., and F.S.A., to boot. If he is modest, he will never get on. Let him not hide his talents under a bushel, or under a pipkin. Let him take pattern by Septimus Scamozzi Mallowney, Esq., B.A., who began life as a staff-holder on the Ordnance Survey. He picked up the rudiments of his profession while carrying Gunter's chain. Smiles, in his “Lives of the Engineers,” has never been able to furnish such a remarkable instance of rise by the dint of perseverance and nerve.

I once knew a city architect who began life as a bricklayer, then became a builder, next an architect, and in a few years he put on his brass-plate, “Blank and Sons, Architects and Engineers.” Blank was a modest man, but he was a fool for not pushing his dignity to a higher level. As far as I know, he never became a member of one of our learned bodies. The Institute never owned him or honoured him, but he managed to get on without it, and get more commissions at times than the whole body of the members together. He built for the Corporation as well as designed, and he had a number of poor relations in the building branches whom he managed to keep a-going—painters, masons, plasterers, plumbers, and decorators.

Let “An Architect” put his foot upon his modesty, and add a half-dozen more signatures to his name. With the illustrious examples of Septimus Scamozzi Mallowney and Mr. Blank before him, there is nothing impossible to an enterprising genius.

I am glad to see, Mr. Editor, that you are dealing severe blows to those unprincipled rascals, the “jerry” builders. “Lay on, Macduff!” Neither respectable architects nor builders can possibly feel offended with your strictures, which are true in substance and in fact. I hope “An Architect” will lend you his assistance. Neither in print nor in public should the “jerry” tribe be let alone, for they are not only common robbers, but they are criminals of a deeper dye. They are the sappers and miners of pestilence and death; they build to murder both their contemporaries and posterity. Let them be treated as Ishmaels of the building profession whose hands are raised against every man, and let every honest man's hands be raised against them.

In conclusion for the present I will say bluntly and boldly, When we have a more honest and efficient class of professional architects, there will be a visible improvement in our builders and building operatives.

GOBAN SEER.

### COST OF GAS-PRODUCING MATERIALS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I would wish to ask if Mr. Fottrell, in his speech to the shareholders of the Gas Company at their recent meeting, as reported in the *Saunders's News-Letter* of the 22nd inst., means to convey to the public that the canal coal and such mixture as is necessary to produce the so-called 20-candle gas, with which the darkness has for a long time past been made visible, is costing the Gas Company 40s. per ton, when it is generally believed that 19 out of every 20 tons of material used in making gas at the works is an article of trifling value, viz., Boghead mineral? An examination of the coke at present sold at the works for a trifling sum per ton will at once prove this to any person acquainted with the matter.

JAMES KIRBY.

Dublin, 41 Cuffe-street,  
28th January, 1874.

### THE CORPORATION AND THE GAS QUESTION.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—For some time past there has been a great deal of discussion on the proposed scheme of buying up the Gas Works. There is one point, however, which, although it seems all important to the public, has not received the attention it deserves. It is to this that I wish to call your attention. The Dublin Corporation propose to buy the Alliance Gas Company's works for, I think, the sum of £800,000. Hitherto this company has paid no dividend worth speaking of. If no profit has been made out of the Gas Works, why will the Corporation give such a sum for them? But the Corporation will manage them better! I don't see any prospect of such an event. They have never proved themselves good for anything, but spending the large income of the city, and doing as little as possible for it. I appeal to you, as the editor of an influential journal, to oppose this scheme, which will saddle the city with an enormous debt, which will be felt for years to come. We owe it not only to ourselves, but to our children, to have justice done in this matter—a contingency which has never been looked into, and which, though it is not likely to come about at present, nevertheless ought to be considered when the purchase of the gas is being considered. Very likely hereafter some new invention for lighting may supersede gas; then, of course, the Gas Works become useless—but still the city must bear the debt. In fine, it is evident that, although the gas directors make a show of reluctance, in reality they are wishing the Corporation to buy them out as soon as possible; they only wait the offer of a large sum. To conclude, it is my opinion that the citizens should make a stand against such a wholesale extortion by their council. Let us endeavour not to have the taxes of this already too highly-taxed city increased.

A RATEPAYER.

### COLOURS AND PIGMENTS.

(Concluded from page 29.)

On the subject of the harmonious combination of colours for decorative purposes, Dr. Cameron spoke at considerable length. Some persons believe that all combinations of colours found in nature were pleasing, but with equal truth might it be affirmed that all the odours of the vegetable kingdom were agreeable, and all the sounds uttered by animals harmonious. One in every 750 persons was colour-blind, and could not discriminate colours; and many persons with a high appreciation of the enjoyment derived from colour were, from mistaken views or want of education, fond of inharmonious combinations of colour. It was difficult to impart a knowledge of harmony in colours, as it was to a great extent a matter of taste, peculiar to nations and individuals. The Arabs and Hindoos had a true perception of the harmony and proper contrast of colours, and in this respect the Italians were superior to all European peoples. The colour which added to another produces the elements of white light is called complementary; thus, red is complementary of green, orange of blue, violet of greenish-yellow, and indigo of orange-yellow. Complementary colours generally, but not invariably, form agreeable combinations. For instance, red and green, though admired by some, are really not a good arrangement unless other colours be added to them, as, for example, blue, red, green, and yellow on a white ground. Blue harmonizes with scarlet, orange, black, brown, and white. Yellow consorts with green, purple, crimson, and black. Orange is superior to yellow, and forms pleasing compounds with horsechestnut, brown, puce, and green. Gold combines still more pleasingly with the colours that harmonize with orange. Red harmonizes with but few colours. Red and blue require yellow to produce a good effect. Scarlet is the only red that consorts with green, but the combination is defective. Gold, crimson, and orange are a very pleasing concord. Purple and gold harmonize. Black harmonizes with white, yellow, and gold. White is most useful when several colours are used. Pink, which is red much diluted with white, and rose colour are best employed alone. Blue, red, and yellow; blue, scarlet, gold, and white; crimson, yellow, blue, white, and

black; blue, yellow, scarlet, white, black, orange, and green; blue, crimson, and yellow, or orange, or gold; blue, red, green, and orange; blue, red, white, green, and yellow; purple, scarlet, and gold; purple, orange, scarlet, blue, black, and white; black, white, and crimson or scarlet—are all pleasing combinations.

Amongst the discordant or disagreeable colour combinations (in juxtaposition) mentioned by the lecturer were blue and green, or lilac; green and red, especially the lighter tints; yellow and pink, or peach colour; orange and lilac, gray or drab; red and olive-green (very bad), and all such tints as cerise, fawn colour, stone colour, &c., as they are overpowered by the red; purple and green, or citrine or chesnut; black and green; white and brown, or greens; gray and buff, or stone colour, or canary; brown and most red tints, or black or silver; red, brown, and green; blue, orange, and olive-green; blue, green, pink, or purple; blue, orange, and purple; blue, yellow; green and brown, or purple; yellow, green and purple, or red or puce, or crimson or black, or brown; red, green, buff, or russet, or black; red, green, yellow, and white; red, pink, and black; crimson, green, and purple; scarlet, green, black, white, and yellow; orange, black, and purple, or green; white, yellow, green, pink, and chocolate; white, green, and purple; black, orange, green, and lilac. Green should always be used in small proportion, and to heighten the effects of other colours. Colours affected each other by juxtaposition. Thus, blue placed beside green caused the latter to appear more yellow, and itself acquires a deeper tone. When orange and green are placed side by side, the former appears redder, the green bluer. Green appears bluer when contrasted with yellow, whilst the yellow inclines to red. Red inclines to yellow when placed beside blue, and therefore becomes somewhat orange, whilst the blue losing red, inclines to yellow, and acquires a greenish hue. If pigments were absolutely pure these effects could not be produced, but every pigment reflects every kind of colour in greater or less proportion.

With respect to the application of pigments, Dr. Cameron recommended simple colours to be employed as far as possible, as mixed pigments seldom gave pure colours, and were liable to change. Fast colours are most necessary in the lights of a picture. The durability and bright colouring of Reubens' pictures were to a great extent due to the use of a fully charged palette.

Only one white colour—Chinese white, a preparation of zinc—was perfect, being unalterable in colour by time or foul air; but unfortunately it could not be effectively used except in water colours. Whitelead possessed great body, but it was easily blackened by bad air. Probably in some cases the painter in oils could cover his lead white with zinc white, and thereby protect the former. Chrome yellow contained lead, and blackened on exposure to foul gases; they form greens with Prussian blue, which often fade very soon. Gamboge is a good permanent yellow, and innocuous with other colours; it works better with water than oil. Cadmium yellow, being a sulphide, is not affected by foul air and is a good and permanent colour when unadulterated. Aureoline is a fine and durable yellow. The yellow, and indeed most ochres are permanent colours. Yellow orpiment injuriously affects the pigments containing lead, copper, and several other bodies. Amongst red pigments, the ochres are most permanent, but not the most brilliant. Vermillion is brilliant and permanent, but requires great skill to use it; the beautiful cochineal lakes are with exception affected by light; and even in combination they fade comparatively soon. Cadmium red inclines to orange, and it is unaffected by all agents save a high temperature. Madder carmine is a splendid transparent red, and is almost as stable as vermillion. Red lead or minium blackens by exposure to foul air, and dragon's blood is fugacious. Ultramarine is the most beautiful and permanent



of the blues, resisting foul air, light, and heat, and yielding only to the action of acids. Cobalt blue and a compound of tin and cobalt, termed cerulean blue, are next in stability, but after many years they often acquire a greenish hue. Prussian blue is only moderately stable, and indigo and the copper blue are fugacious, and should not be used. Burnt sienna, burnt Roman ochre, and carmine orange are permanent and permanent reds and yellows make, of course, permanent oranges, though it would be desirable to use the simple pigments if procurable. Copper greens are only tolerably permanent. Several fine permanent, and innocuous (in combination) greens are prepared from chromium. Some chrome greens contain no chromium, but are mixtures of Prussia blue and chromate of lead, and are fugitive. Brown madder is a permanent marone. Black lead (for forming grays or shades), lamp black, Vandyke brown, and sepia are useful and permanent pigments. Bitumen and asphalt are bad, as they are almost sure to crack.

### THE BANIM TESTIMONIAL.

WE are glad to see by the published list of subscriptions that the work of the Banim Testimonial is in a fair way of being carried out. It would be a matter of deep regret if the survivor of the "O'Hara Family" was allowed to pass from amongst us without some substantial tribute to his and his brother's memory, particularly in the city of Kilkenny. The list should be kept open till practical responses are obtained from Irishmen throughout America, Australia, and New Zealand.

### THE ALLIANCE GAS COMPANY AND THE PUBLIC.

RECENT proceedings on the part of the Gas Company may "point a moral and adorn a tale" at a date not very remote. The giving of a pension to Mr. Stevenson, and the securing of one in prospective to Mr. Cotton, must not be received apart from the influence of certain members of the Dublin Corporation. We would be the last to object to a reasonable superannuation to a faithful servant when past his labours, but we question whether it was prudent or regular to entertain the future reward which Mr. Cotton, or his friends on his behalf, have stipulated for. It is needless to say that we have no personal grudge to Mr. Cotton, but we cannot be blinded to the fact that Mr. Cotton's retirement from the Corporation, and his appointment in the Gas Company, was a pre-arranged matter throughout. Of this fact there are dozens of others aware, who are as well acquainted with Corporate matters as ourselves.

The more we look into the connection that exists between the Corporation and the Gas Company, the more we are convinced that the policy adopted is one regulated with a view to the future possible contingencies, should the Corporation succeed in acquiring the management of the gas supply. For the present, though Mr. Cotton is no servant of the Municipal body, he can be their very obliging friend and agent; and we will not be astonished to hear—should he return once more to his primitive position on Cork-hill (in the event of a Corporate purchase)—one of the first acts of his friends will be to move that his salary be increased.

On the subject of the Gas Question proper, the chairman at the late meeting of the proprietors was pleased to tell the shareholders and the public that the proposition of going back from the 20-candle gas to the 16-candle would be a popular movement. Does the

chairman think that the ratepayers of the city are consummate fools, and that they will quietly swallow the proposal? "Let there be light," said the Creator of the universe. Let there be darkness or a reduction of light, cry the gas directors, that we may have a handsome remuneration this year, and give a dividend to our anxious shareholders.

A large portion of last year's gas supply was intolerable, though we were told it was 20-candle gas; what will it be when it is reduced to 16-candle? "I think there be six Richmonds in the field"—no, not now; one "Verificator" is gone, and one "Verificator" is left, and, as blood is thicker than water, the right of somebody will be upheld, and the public will have to look out for itself.

### CIVIC LYRICS.—No. LIV.

#### BIRDS AND MEN.

Spring-time brings, when winter closes,  
Daisies, cowslips, and primroses;  
Birds that mate and sing together,  
In the hedgerows and the heather;  
Blackbirds pipe and sparrows chatter,  
Full of love and other matter;  
Only local rulers quarrel—  
Take a note, and point the moral.

In the city sparrows flutter,  
In the areas and the gutter;  
Pigeons coo beneath house portals,  
In a tongue unknown to mortals;  
They can pick and they can carry,  
They can build like men that marry.  
'Tis birds of prey that always quarrel—  
Take a note, and point the moral.

Pigeons sometimes carry letters,  
But turn not insolvent debtors;  
Though betimes they fly the nation,  
They come back to fill their station;  
They ne'er open sealed despatches,  
Yet they're shot by men at matches,  
By just men who thieves and quarrel—  
Take a note, and point the moral.

Spring-time brings us fresh green bushes,  
Fields of larks and glens of thrushes;  
Country charms with city curses,  
Worse than plagues of monthly nurses—  
Never ending, still beginning,  
Corporators always sinning.  
Public health is still the quarrel—  
Take a note, and point the moral.

CIVIS.

### ESSEX BRIDGE.

PARLIAMENT-STREET is no longer to be a *cul de sac* during the rebuilding of Essex Bridge; a footpath has been constructed across the river,—thanks to a subscription amongst the mercantile community in the immediate vicinity. "Thoroughfare stopped" in a leading street, except for a very limited period during the alteration of a gas main, or similar cause, should not be tolerated by the citizens of Dublin; but to be endured for an indefinite term (which may be properly applied to the time which will be occupied in rebuilding the bridge), has proved to be beyond the patience of those most interested. In obstructing a thoroughfare such as Parliament-street, it ought to be compulsory upon the authorities to provide sufficient substitute; to a small extent they have done so in erecting the temporary bridge opposite Swift's-row, but it has proved no accommodation for pedestrians having business to transact on the line of Parliament-street and Capel-street. We would have been rejoiced if some one of the inhabitants had tried an action with the Corporation of Dublin, to test their right to cutting off the main access to an important street. However, it is probable a precedent would be established in their favour, as the following advertisement which appeared 121 years ago in the *Dublin Journal*, December, 1752, will shew:—

"Several of the inhabitants of the City of Dublin, being desirous to subscribe towards the building of

a timber bridge to the westward of Essex Bridge, facing Chester-alley,\* 20 ft. in the clear, for the convenience of foot passengers and sedan chairs only, during the rebuilding of Essex Bridge, such person or persons as are desirous to contract for the said work are to send their plans, scantling, and proportions in writing to Edward Scriven, at his office in Skinner's-row, on or before the first of January next. December 8, 1752. N.B.—The contractor to deduct from his estimate the value the said bridge will be to him when the public have done with it."

### CATHOLIC HALL COMPETITION, BELFAST.

NEARLY five months have elapsed since the date fixed for the sending in of designs for the above building by five architects who were invited to compete. The site proposed is at the rear of the Provincial Bank; its frontage to be towards Bank-lane, a passage of very irregular width. Within the area of about 110 ft. by 75 ft. it was required that the whole of the buildings, yards, &c., were to be confined. These included: boys' and girls' school-rooms, with separate entrances, closets, and lavatories; large hall; minor hall; reading-room and library; billiard-room; cloak-rooms; kitchen, and caretaker's apartments. The cost of the entire not to exceed £7,000, including "the usual percentage allowed to the profession." Premiums of £40 and £20 were offered.

Although in possession of the main facts of what has occurred since the 16th of September last, we are unwilling at present to do more than state that all the drawings were laid before the Council of the R.I.A.I. for their opinion. The following is the report which has been forwarded to the "Committee for the erection of the Catholic Hall" through their secretary, W. Campbell, Esq. :—

Sir,—I am directed by the Council of the Royal Institute of the Architects of Ireland to inform you that, after a very careful and minute examination of the six sets of designs sent in, in competition for the new Catholic Hall, Belfast, they have come to the following conclusions, viz :—

1st. None of the designs could be carried out for the amount prescribed in the conditions; but as this was an impossible condition, inasmuch as the accommodation could not be provided in a sufficient and suitable manner, this condition must be considered only relatively.

2nd. Three of the designs largely exceed the others in merit, and on these the council submit the following special report :—

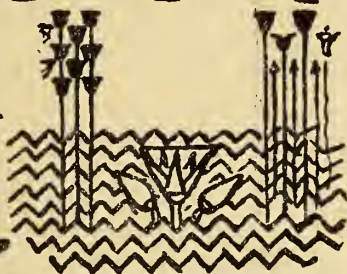
"Certavi et Vici."—The principal feature of this design is, a spacious and, in itself, very cleverly designed hall, calculated to give accommodation to large audiences. The space, however, to afford this is gained by placing it on the third storey of the building, at an inconvenient height above the street level. To the size and capacity of the great hall is somewhat sacrificed the sufficiency of the approaches and other features of the scheme; and, while recognising considerable merit in his design, the council are of opinion that the author of "Certavi et Vici" has so much more exceeded the limit of expenditure than the other competitors under consideration, as to be entitled only to the third place in order of merit.

Between the two most admirable and able designs, by "Crozier" and "Confidence" respectively—so apparently equal in merit of design, architecturally, and economy of planning—the council have taken considerable pains to discriminate, and proceed to compare their different points. In the great hall, *per se*, the superiority must be awarded to "Crozier." It is somewhat more commodious than that of "Confidence," and would

\* Chester-alley appears to have been obliterated after the re-building of the former Essex Bridge, as no trace of it occurs upon the maps of Dublin after that period.



EGYPTIAN



LOTUS & PAPYRUS  
GROWING IN  
THE NILE.



S



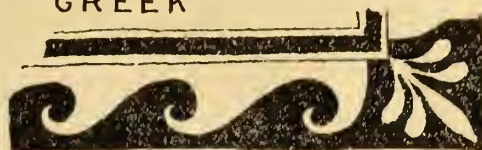
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CAP. FROM LUXOR.

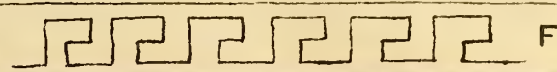
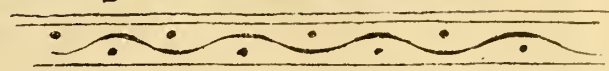


SEE CELTIC

GREEK



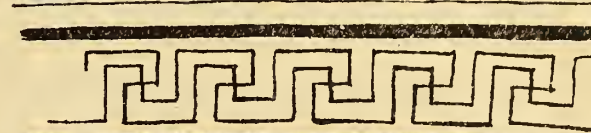
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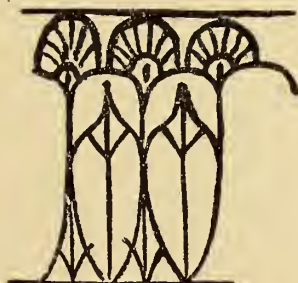


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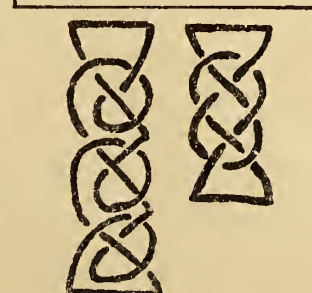
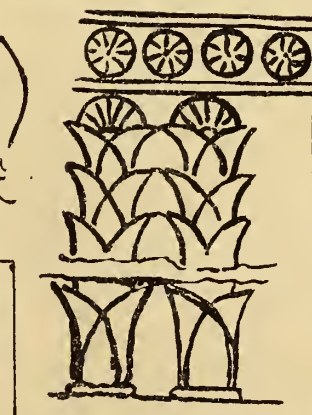


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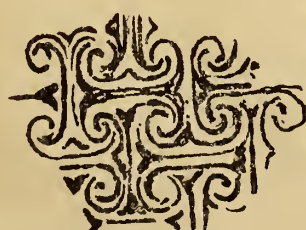
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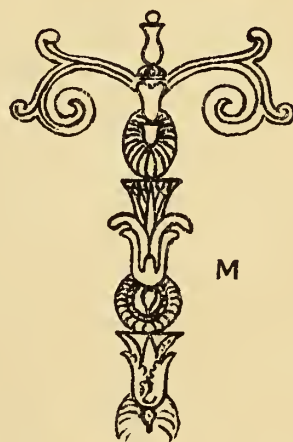
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CELTIC



SEE EGYPTIAN



M

POMPEIAN



B



A



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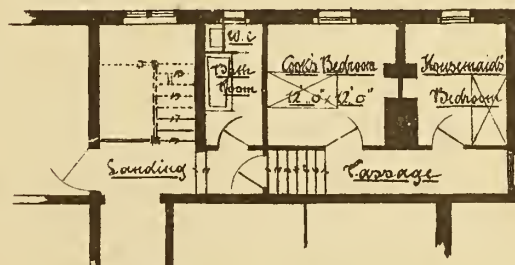




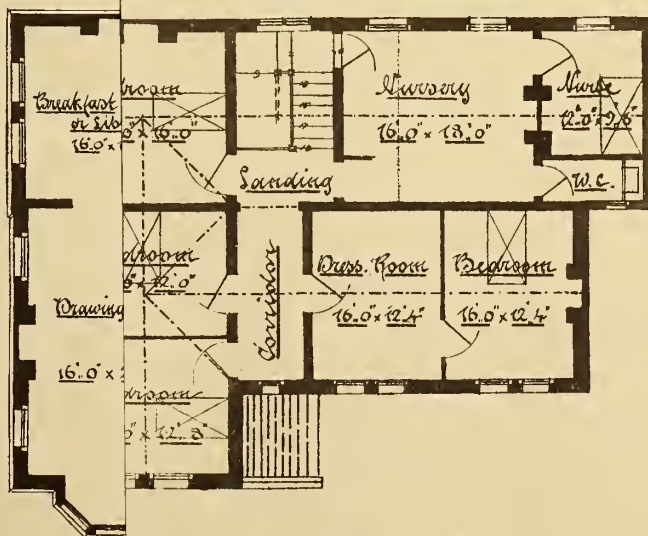




**SIDE ELEVATION**



**PLAN OF SECOND FLOOR**



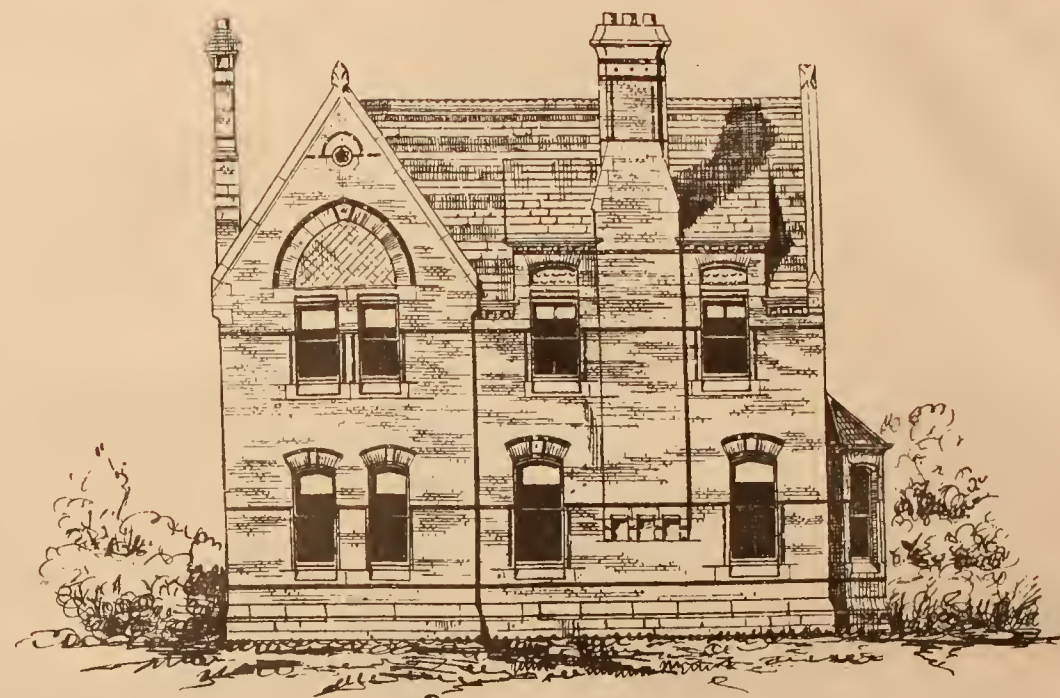
*Note. The Downstairs rooms may be placed on the half-space with the Nursery over it thought more desirable*

**FIRST FLOOR PLAN**  
Scale of Elevations &c.





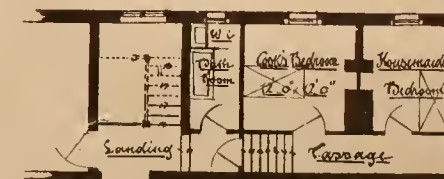
FRONT ELEVATION



SIDE ELEVATION



LONGITUDINAL SECTION

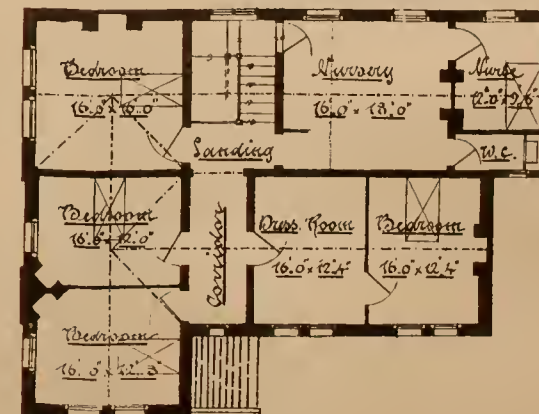


PLAN OF SECOND FLOOR



GROUND PLAN  
Scale of Plans.

DESIGN FOR A VILLA  
20 COST 20000



FIRST FLOOR PLAN  
Scale of Elevations &c.

Note. The Devault's rooms may be placed on the half-pace with the Nursery or if thought more desirable



be acoustically much more satisfactory. In this latter respect "Confidence's" great hall could not be commended, though in architectural effect it has the advantage. The author would appear to have considered that the somewhat ecclesiastical character obtained by a high-pitched roof would perhaps, in the present case, compensate for the loss as regards acoustics. It is fair to it to observe, however, that, in practically carrying out the design, the lines of this apartment might be successfully modified, without disturbing the excellent arrangement of the plan as a whole. In the matter of approaches, vomitories, staircases, providing a circulating passage way round three sides, and arranging the minor hall on the same level so as to be used *en suite*, "Confidence" displays superiority. The retiring-rooms for performers are provided by "Confidence" in a convenient way close behind the platform. The provision of these retiring-rooms by "Crozier" under the platform (but on the level of the hall), being but 8 ft. high, and raising the level of the platform at its lowest point to the inconvenient height 8 ft. 6 in. above the hall floor level, is objectionable. The platform of "Confidence" would be about 4 ft. high in front, and the space under it would be available for storage of seats, &c. The level of the great hall floor is not placed so high above the street by "Confidence" as it is by "Crozier." In the design of "Confidence" the galleries of the great hall have no pillars, but are supported by brackets from the side walls; this construction is questionable for galleries of so great a depth.

*The Schools.*—Those by "Crozier" are of the minimum size asked for. In height they are superior to "Confidence's," but the lighting is very insufficient. The two schools by "Confidence" occupy the entire area under the great hall; they are spacious and well lighted, capable of being used as one apartment, and would be available as a minor hall of the same floor area as the greater hall.

*Minor Hall.*—In point of size, the superiority is with "Crozier," his area being about 940 ft. superficial, against 780 ft. in his competitor's. The committee, knowing better than the council the special purposes to which they propose to devote the minor hall, can best say whether the arrangement by "Confidence" of the two halls on the same floor, or that by "Crozier" on different floors, is the more desirable.

*Reading-room and Billiard-room.*—Superiority is to be awarded to "Confidence." The arrangement of "Crozier" of both these rooms on the ground floor, and lighted in the least desirable way for both such rooms—viz., from the end,—is defective. The reading-room by "Confidence" is conveniently lighted along one side, and the billiard-room and smoking-room are placed judiciously at the top of the house, where a top light is available for the former. In the design of "Crozier" the ground-floor passages would be somewhat deficient as regards light.

*Cost.*—Fairly judged, the council are of opinion that there is no important difference between these two competitors; both have most conscientiously and with pains worked out their plans with ingenuity and economy. In adjudicating on them, the council have put out of consideration and been uninfluenced by such matters as imposing towers, which are not essential to the scheme, and by those features which may be regarded in competition designs as mere graces of draughtsmanship, never seriously destined to appear in the sober reality of working plans. On careful weighing of the respective merits and demerits, the council must award the first place to "Confidence" for general superiority of arrangement and excellent planning; and the council are of opinion that, with some modification of the ground plan, form, and transverse section of the great hall, the building would be a very successful one, though on a somewhat too limited site.

In conclusion, the council have to thank the Catholic Hall Committee for the confi-

dence evinced in their disinterested judgment in inviting their opinion. They have to congratulate the committee on having elicited in this competition designs which would well hold their own in any competition of the architects of the kingdom, and which reflect honor on their designers, and credit upon the architectural progress of the country.

G. C. HENDERSON, Hon. Sec.  
To W. Campbell, Esq.

## THE ARCHITECTURAL ASSOCIATION OF IRELAND.

A GENERAL meeting was held on the 22nd ult., the President, Mr. J. J. O'Callaghan, F.R.I.A.I., in the chair.

Amongst those present we noticed—Messrs. W. M. Mitchell, V.P.; A. W. Robinson, T. W. Barry, J. Knox, R. Browne, T. Holbrook, C. J. Allen, J. Neil, H. Keogh, T. W. Parry, T. H. Longfield, R. S. Swan, J. L. Robinson, D. J. Freeman, J. Fennell, &c.

The secretaries announced the presentation of books to the library.

A working model of O'Connor's Patent Swing Hinge was exhibited.

Mr. T. Hevey was elected a member.

Mr. T. H. Longfield (hon. sec.) read a paper on "Ornamental Design."

Mr. Mitchell, V.P., in proposing a vote of thanks, said the association was indebted to Mr. Longfield for his interesting paper, which he hoped shortly to see published. The subject was one upon which he knew nobody more competent to speak than Mr. Longfield, who had made it a study of his own, as his beautiful drawings of a Pompeian House and Edward III.'s Tomb testify. In his paper he entered on a field of thought which he might have pursued for many hours, and still left unexhausted. It was a very interesting study to notice the effects of climate and race on ornament, as was fully shewn in Egypt, with its bright sky and the equally brilliant tone of its ornament, the brightest colours—white, red, yellow, and black—being used. After all, he must confess that few ornaments can equal and none surpass that of Greece at its best and purest period, for purity of outline, grace, and delicacy. The same might be said of Greek sculpture. He concluded by wishing that Mr. Longfield would soon favour the association with a continuation of his paper.

Mr. T. Holbrook seconded the vote of thanks, which was put from the chair and carried unanimously.

## THE LOUGH ERNE DRAINAGE.

THE enquiry held by the direction of the Commissioners of Public Works for the purpose of hearing objections to the plans lodged with regard to the drainage of Lough Erne district, elicited some interesting information. Without personally visiting the district, we are not prepared to say what amount of truth or grievance may be contained in the plans put forward by the majority of the objectors. Taking the evidence, however, we are prepared to say that a large amount of the objections urged were, if not exactly frivolous, untenable. Among the crowd of farmers who attended there was a degree of unanimity, but their objections were urged in a fashion to show that compensation was what they desired, and not the continuance of the floods of water that were said to work such great benefits to their grass lands.

We all know, or ought to know, that a moderate flooding of grass lands in certain seasons is an irrigation measure of importance; but if the floods remain too long upon the land, the benefit is *nil*. It would be far better, we hold, if the drainage as

proposed were carried out, than that the district should continue in its present state. The grass lands now overflowed could be to a great extent relieved from the action of the floods, except at exceptional times. Thousands of acres could be reclaimed and put under cultivation, and thereby add to the food and industries of the country. Year by year the value of the drained land would increase, and we do not doubt but that in twenty years the value per acre would be quadrupled.

Our old farmers have strange notions sometimes. It is difficult to make many of them understand the value of drainage. So steadfast are some of them on the flooding question, that there would be little difficulty in getting them to submit to another Deluge, not for forty days, but for four times forty days, provided an ark was built for them, and of sufficient dimensions to hold their live stock and their last year's crop of hay.

It would be a decided improvement, we think, if the lands in the Lough Erne district were relieved of winter floods as well as those of other seasons; but to wholly relieve them of the winter floods would be a rather costly and perhaps a nearly impossible work. Whatever plan may be adopted, we hope to see the work of drainage commenced in earnest and prosecuted to completion without further unnecessary delay.

## THE ROYAL IRISH ACADEMY.

A MEETING of the Academy was held on Monday evening. The Rev. J. H. Jellett, S.F.T.C.D., occupied the chair.

Mr. Edward Hardman read a paper on "A Supposed Substitution of Zinc for Magnesium in Minerals." Mr. Hardman stated that in the course of a certain investigation he had accidentally discovered the presence of zinc in limestone rocks in the County Tyrone. It then occurred to him to examine the overlying basalt, and he found in that enough of zinc to identify, although he did not think it had been known to occur in rocks of an igneous formation. He afterwards found it in basalt from another neighbourhood. On a further examination of rocks from the Co. Waterford he found, by means of the blow-pipe, a very appreciable quantity of zinc.

Professor Reilly, in moving that the paper be referred to the council for publication, observed that the paper was a most important one, although zinc had already been demonstrated to exist on a large scale in magnesian rocks. He referred to the value of minute inquiries on such matters, and mentioned a case in which a continental scientific gentleman had discovered, by careful analyses, silver, gold, and platinum existing in zinc, and affecting its characteristics. If researches such as those of Mr. Hardman were followed up in a general way, a knowledge might be attained of the deposits of metals in such quantity as to be capable of serving the purposes of industry.

Dr. W. K. Sullivan expressed his surprise at the occurrence of zinc in basalt or any of the newer igneous rocks; but that it occurred in the older rocks was perfectly well known. The discovery of Mr. Hardman, however, seemed to agree with a wide theory which had been put forward by Bischoff.

After some observations from the chairman, the resolution was put, and carried unanimously.

The Secretary announced a donation of calcined bones, found in a cist at Newcastle, near Newtownmountkennedy.

The Secretary presented to the Academy a copy of "O'Curry's Lectures on the Manners and Customs of the Ancient Irish."

On the motion of Samuel Ferguson, LL.D., V.P., a vote of thanks was given to Dr. Sullivan for his donation to the library.



## ON ORNAMENTAL DESIGN.\*

THE subject I have selected to speak to you on to-night—"Ornamental Design"—is one of very general interest to us all. "*Finis coronat opus*," is true for architecture as well as everything else. It is the surface of things that is continually presented to us; we must therefore use our best endeavours to render it pleasing by appropriate and refined ornament. That there is at the present day a great tendency towards just opinions on matters connected with art, and an intelligent appreciation of works of ornamental design, can, I think, hardly be denied, which is mainly to be attributed to the efforts of the great writers on art, and the high tone of the criticism adopted by the Press and magazines on these subjects. The immense advantages to be derived from such sources of instruction as the South Kensington and British Museums can hardly be over-estimated, where the original works of the great masters in sculpture, metal and ceramic work, and all the other ornamental arts, may be inspected; but it is quite impossible, save from the originals themselves, to get the entire spirit of the works, however much lucid and exhaustive descriptions, aided by photography and engraving, may assist us towards forming a just estimate of them.

That Art museums should be established in this metropolis and Edinburgh, would, I think, do much in extending a most beneficial influence on the respective countries, and place the inhabitants of each on an equal footing with the English in the means of becoming proficient in the arts. That Dublin has had the advantage of such a museum for a great portion of the past two years, is due to the munificence and public spirit of a family already celebrated for such qualities, and whose efforts were most efficiently seconded by those in whose hands the selection and arrangement were placed. In the department of manufactures it was with some national pride that we saw the beautiful productions of an Irish pottery in no unequal rivalry with Stafford and Worcester, either as regards beauty of material or elegance of design. I might also mention some ebony carvings, executed by a Dublin firm, as in every way excellent.

Much assistance is to be gained in ornamental design by the careful study of books on art. Though our Royal Dublin Society does not contain the choice collection to be found in the South Kensington Museum Library, yet you will find there many of the great works on art, and every facility for referring to them. To design ornament successfully, the works of antiquity and the middle ages should be diligently studied, not for the purpose of servilely copying them, but to form a nucleus on which to engraft our originality of conception. The good selection of an ornament will often prove more agreeable than a bad creation; but in order to choose well, the principles on which ornamental design is constructed must be understood in order to apply the proper tests. There is much originality in the ornament of the present day; that that originality is often disagreeable—sometimes hideous—you will, I am sure, grant me.

The prevailing taste of the age we live in has much to do with ornamental design. The fret and the wave pattern were the ornaments *par excellence* at the time when every building should be Greek, when Doric, Ionic, and Corinthian porticoes were copied directly from Stuart and Revett or other authorities; it was at this period that the exact proportions that should reign between column, frieze, and cornice were matters of the most careful study. The extent to which this measurement was carried, the works published by the Society of Dilettanti show. Churches were built almost direct copies of temples, as St. Pancras' Church, London, the sides of which are ornamented with two beautiful reproductions of the Erechtheum. That this taste for copyism got no further in the Egyptian style than the Egyptian Hall, Piccadilly, we may be very thankful. What a terrible calamity it would have been if an avenue of sphinxes had been placed in one of the London parks! Surely that strange creature has been done to death as an ornament for gate-piers round this city. It is no wonder that the Cinque-Cento ornamentist delighted in it, for he found it suited his purpose like the rest of his stock-in-trade—hybrid animals of every description; he even added to the absurdity of the sphinx by affixing wings to it.

The great Sir William Chambers—who lived at the time of great taste for things classical, and one of whose best works you may see at Lord Charlemont's seat, Marino, Clontarf—had to suffer from an introduction of a taste for things Chinese, and to assist in the erection of pagodas and such-like—all well enough in China, but most offensive when

transplanted. I saw one of these erections at Munich in the Englischer Garten. I suppose Kew was taken as their type. How much against Sir William's ideas of classic symmetry, proportion, and beauty it must have been to work in such a barbaric art. The union, however, between Grecian and Chinese was quite as harmonious as that of Gothic and Japanese, of which there has recently been several indications. As we look round and survey the infinite number of ornamental designs that everywhere abound, we cannot but be struck with the idea of the infinity of arrangement in design, as well as that of infinite divisibility and magnitude, or of the infinite number of combinations of sound in music; yet, as in music, many of the combinations are discordant and unpleasing to the ear; so in form many arrangements lack suitability, and are hurtful to the eye.

In the hands and minds of the Cinque-Cento ornamentists you will find much that will arrest your attention in their works of ornamental design; they certainly worked hard and well,—if often extravagantly, their extravagance must be ascribed to the classic tendency of their age, and thence their inclination towards mingling the mythology of the pagan in buildings that were erected by the followers of Christ. Michael Angelo and Raphael must always occupy foremost places in the history of ornamental art. St. Peter's and the Loggia of the Vatican, in Rome, will always attest their greatness.

I am now going to ask you to consider with me a few examples of the principal great styles of ornament. In the Egyptian we have a conventionality but slightly removed from nature; still, however, a very rigid one. Their temples seem all to have been decorated similarly in style; in this their priests were the directors; all this power was in their hands, and everything was managed by them, everything was represented in its fixed colour, and all the different grades of society were shown in varying costumes, which were strictly adhered to. With these restrictions it was not likely that any natural representation of things could exist; it was not till the Grecian period that we find nature in animal form carefully studied and shown as it is; though it was not in their leaf, this was always conventional. The materials in Egyptian ornament are few; the lotus, papyrus, palm, and feather form the greater portion of the real things that they studied. Here is a pattern taken from a vessel in M. Jacquemart's recently published work on Ceramics; it is the simplest arrangement of an ornamental design that can be imagined—bud and blossom of the lotus rising alternately from a line. Another, taken from a sheet of ornament, etched by Mr. Owen Davis, in the *Building News*, is a bouquet formed of three full-blown lotus plants with two blossoms between, the convex sides of the blossom fitting naturally into the concave petals of the full-blown flower, the five tied together with a band. Of others from the "*Grammar of Ornament*," one would suggest the idea of a bud and blossom seen in profile, as well as a blossom on which you looked down, which naturally takes the star shape. There you have a capital very like an upturned bell, with a curved top; immediately after the cap springs from the column you have a system of large leaves meeting at the bottom, between which is another leaf of the same kind; behind these again spring delicate full-blown papyrus plants, with blossoms of lotus and papyrus between. The Egyptians had an ornament very like the fret, though, as far as I can see, their frets never crossed in the Greek or Roman manner.

I will now point out to you a pattern of flattened C's working into each other ("*Grammar of Ornament*," No. 15, plate 10), the idea of which you will also find in Celtic ornament. The conventional representation of the lotus and papyrus growing in the Nile, which you will see at the bottom of the first page in this work, is of the best type of Egyptian ornament. In this style we have the idea of the full-blown blossom as a vase—a very natural idea, and one that was largely adopted in after ages. Leaving sphinxes and hieroglyphics to the antiquarian and historian, the ornamental designer will seize on those beautiful and pure creations that the Egyptian school offers, that it had taken centuries to bring to perfection, of whose remote antiquity our sacred book and its own majestic ruins mutually attest to, the daughter of one of whose Pharaohs was the nurturer of Moses, to whom the all-powerful One gave the laws on Sinai; the noble temples that border the Nile, Karnak, Luxor, Philoe, remain to this day as witnesses of their great power. In the British Museum the colossal head of Memnon and a portion of his hand and arm, in Egyptian granite, speak of themselves volumes for the power and greatness of the race. To see their power of ornamental design, you have only to go to the Royal Dublin Society Museum and inspect the mummy and case presented by his

Royal Highness the Prince of Wales, and which was, I believe, disintombed in his presence; you will see on it the amount of art and care they expended on their dead. I should notice to you that, while a great number of the Egyptian caps belled out like the one at Luxor (see fig. T), others again stopped harshly against a very heavy abacus (fig. S); in capitals the feather pattern was also very extensively used.

Of the Assyrian ornament I need say but little; it does not evidence any gracefulness equal to the Egyptian. We may observe in it an attempt at dividing the leaf into proper forms—a centre line and indented markings; though in a very stiff manner, it is still suggestive of the principle. This was a decided advance in art, and it was this influence that originated the Greek acanthus. The Egyptians seem not to have divided their foliage in this way. How different the Assyrian conventionality was from the Egyptian, may be seen by a careful comparison of the Nineveh slabs in the British Museum with the Egyptian antiquities placed so near them. You may see some of them well reproduced by castings in our National Gallery. There is much more power and knowledge of animal form in the Assyrian than in the Egyptian conventionality. The Assyrian figures are well-proportioned and majestic.

I now come to the Greek ornament, so full of grace and beauty. We all admire the honeysuckle, as it is called, and the volute. In this style the capabilities of ornamental design were very great: there were long lines to be relieved in their cornices; there were metopes, and pediments, and tile terminals. That Greek architecture was founded on the early wood buildings of the country, is generally allowed; the trabecations, the triglyphs, the dentils, and the gutta doubtless bore some resemblance to the means by which their timber-work was put together in archaic times, and these offered good opportunities for decoration. The patterns that were most largely used are the honeysuckle, the fret, and the wave patterns (see figs. D, F, and K). The fret is a pattern that, though slightly differently treated, occurs in most styles. The Egyptians, the Chinese, the Japanese, and the Celtic schools all had it, and all found it of very great use in breaking the monotony of curved lines. The crossed fret had its rise in the Greek school, every possible variety of this ornament was indulged in, and its capabilities are endless; it is a great favorite in the present day. The Greeks got tired of fret after fret, so they introduced subjects and squares of repose, circular flowers, &c.

I should wish to say a few words on the origin of the honeysuckle ornament. The honeysuckle had to my mind very little to do with it; it had its origin without doubt in the floral ornaments of the Assyrians, as Mr. Layard very clearly shows in his work on Nineveh, where he gives you an Assyrian (see fig. E) and a Greek pattern side by side. This pattern is merely the symbolic representation of the leaf form of nature. Of the other patterns useful to the ornamentist, I would suggest the pattern of the leaf and berries, in which leaves start off from a stem at the same point on either side, and berries between each, or alternated, and with blossoms between them (see fig. L). The beautiful wave patterns are I think to be found always going the same way; in later times it was usual to run it to a centre, so that the curves of the wave should be symmetrical on either side of it; it is certain that the different directions the pattern takes has not at all a pleasing effect to the eye. A peculiar and very beautiful style of Greek foliage is to be seen in the choragic monument of Lyciscrates; of this monument Mr. Owen Jones justly remarks that one of the principal characteristics of the Greek style of ornament is, that the various parts of a scroll grow out of each other in a continuous line, as the ornament does that surmounts this monument. When the so-called honeysuckle pattern began to be used to cover surfaces to any great extent, as on the Etruscan vases, where one Greek pattern grew out of another, it became tedious and unmeaning, and the foliage often lumpy and disproportionate.

A great deal of good Greek feeling existed in Pompeii, as is evident from a careful inspection of the ornaments from that city. The Ionic caps to be found there are of a most peculiar and elegant form, the volute having a projecting member in the centre very frequently, which has a very light and graceful effect (see fig. A). In many of the small patterns forming the panels on their walls are to be found many clever treatments of the Greek flower pattern (see fig. B), but again they often adopted a custom of springing a circular form and a line from the same point without the latter being tangential to the former at the point; this as a general rule should never be adopted in ornamental design. Some of the best Pompeian patterns are the Arabesques and scrolls; to works like these in the baths of Rome the Cinque-Cento ornament was much indebted. Some of the pavement patterns

\* By Mr. Thomas H. Longfield. Read at meeting of the Architectural Association of Ireland, January 22nd, 1874.



were particularly satisfactory, especially those in which there was not much of the over and under effect prevailing. The ornament on two mosaic columns in the Museo Nazionale, Naples, and which gives the name to the house in which they were found, gives a beautiful spiral effect to the column in the simplest manner. The Pompeian metal-work is generally constructed on very good principles (see fig. x); in the beautiful bronze tripod with winged sphinxes in the Museum at Naples you will find much to admire in its graceful form and elegant decoration. The form I give you of a pedestal at the side of a fountain (see fig. c), which may be called a monopede, you have a lion's leg crowned with acanthus leaf, out of which rises the head and breast of the animal; in this example, just above the head springs a capital, on which formerly rested a device for a fountain playing into the impluvium in the centre of the atrium.

The works in ornamental design carried out in Paris, under the directions of MM. Percier and La Fontaine, present to us a new treatment of ancient art; the luxuriousness of the Roman style is eschewed, and Greek of the stiffest and coldest type is introduced. The works of these two men bear witness to the zeal with which they prosecuted their favourite style; their drawings are full of grace and refinement, and might be taken as examples of perfect draughtsmanship. After the extravagancies of the Louis Quatorze, Quinze, and Seize styles, it was but natural that the tide of art should change; the feeling that prompted the erection of a temple—"Aux grands hommes, La Patrie reconnaissante"—had to look to Classic times for a prototype. The direct imitation of antique forms is never a very healthy sign in art, and this style of the first empire, as it is called, had soon to throw off its archaic stiffness. This style rivalled in trophies of arms, winged victories standing on globes, candelabra, sphinxes, terminals, and such-like accessories.

Some years ago there was an excitement about a new style of architecture. I have seen some works published on the subject, and must say that nothing could be more disappointing than the results. I conclude that the new styles of ornament to decorate them would have been equally bad. We ought to be very thankful that such a dreadful conglomeration as Gothic form with Classic detail was never tried in these countries; such cross-breeds in art are not to be tolerated. One church, like Sainte Eustache, in Paris, is quite enough.

The arts of the Renaissance style are to be seen in perfection at Venice. There is of course a great deal of good and a large amount of bad ornament, so you will have to make a careful selection. The Scala Dei Giganti, in the Ducal Palace, is ornamented with much refinement; a chimneypiece in the Ducal Palace also deserves careful study. Several of the palazzi are also refined in their decorations. As examples of the light and delicate style, the Church of Santa Maria Dei Miracoli offers ornaments that grow gradually and gracefully out of each other—a general principle in ornamental design when good, but when we see on the top of a light and elegant composition a heavy basket of flowers, we have a great inclination to pluck it away as an incongruity, yet this is exactly what appears in some of the ornaments in this same church. I think that such ideas as dolphins turning into cornucopieæ on the flowers in which birds are perched, and such-like extraordinary combinations, are unpleasant. The arabesques designed by Pintelli for the Church of St. Agostino, Rome, are very gracefully and well designed, and grow gradually from the parent stem. In Pintelli's work we may see great elegance and refinement. In Renaissance ornament the centre line is often widened out to form vase-like excrescences, and also from it foliage may spring to make up the gaps. Some of the panels in the Church of San Michele in Murano are well worthy of adaptation; very often a tripod or other vessel forms the base, from which the centre stem springs, and off it the foliage grows; often heads with beards turning into foliage are introduced.

In good ornament a pattern should never be arranged so as to give you the effect of objects hanging exactly contrary to the fixed law of gravitation. What I refer specially to is the instance of an upright panel divided in two by a circular boss in the centre; from it, above and below, springs an arabesque pattern; from the curved foliage blossoms hang; this will be all right for the upper portion of the panel, but when you come to the lower one you find your treatment will not answer, and that naturally hanging objects must be expelled from your design. I have seen such a panel as I have mentioned to you in execution, and the effect, I assure you, was highly objectionable; it is quite as bad as scrolls being cut short to fill panels of a certain length; you could understand the possibility of such an expedient in room-paper, but I have seen the process repeated in oil colour to imitate it: so dangerous is the result of a bad ex-

ample. Frequently on the centre line is suspended a panel for inscriptions: this has a very graceful and good effect; birds are often introduced hopping naturally on the foliage, picking up berries on foliage springing from the principal curves. Acanthus leaves are frequently turned into lions' claws in Cinque-Cento ornament. Many of the ornaments of the Renaissance were infinitely superior to the clumsy and ungraceful overgrown acanthus inventions of the late Roman work. Some of the most beautiful Renaissance work is to be seen in the choir of a church in Perugia, executed by Stefano di Bergamo, from designs by Raphael. In the best periods of the Renaissance the ground was not too much covered with ornament, which gave a great amount of repose, unattainable by other means. Many of the ornaments used by the Renaissance artists were unsuitable for ecclesiastical purposes; but, deprived of its tripods, altars, terminals, bulls' heads, and other remnants of a false theology, and confining the ornaments to nature and truth, this objection is entirely averted.

The Elizabethan ornamental designs have a great mannerism about them, but are frequently gracefully and well designed, though whence the "motif" was procured it is very often hard to see; in most cases I fancy it took its rise in the unbridled imagination of the designer. That many of the ornaments were taken from the printed books of the period, there can be little doubt; they abound with a large amount of the most extravagant ornament in this style. Any effect these patterns may have is greatly aided by a repetition of graceful if often unmeaning forms; nails, draperies, trusses, curves joined by lines, and hosts of other elements, are put under contribution by this style. The notion of covering the lower part of a column with arabesques and fluting the upper portion, was quite a feature of the Renaissance revival. At Pompeii the same idea prevailed of having the bottom part plain, and colouring it differently from the upper portion, which was often fluted; by this arabesqueing and fluting, much apparent strength was frittered away. The banding of columns, too—which, if done sparingly, has such a good effect,—became so excessive that gradually the column disappeared, and bands only were to be seen; the pedestals, too, on which the columns rested were in the Elizabethan period panelled so as to leave but a very small amount of plain surface. The panel formed by having an oval in the centre, with the axes continued till they meet the sides, was a very frequent form. The designs for ceilings were bold geometrical ones; of these, those at Bramshill, Hampshire; Dean, Northampton; and the strange one at Broughton Malherbe, are good examples, which you will find illustrated in Mr. Shaw's work on Elizabethan Architecture.

Though it was not till the close of the fifteenth century that the Gothic style waned in England entirely, it had by that time worn itself out in the extravagancies to be seen in Henry VII.'s Chapel, Westminster Abbey. The elaboration of its system of fan-vaulting and pendants almost approached the rococo, and the mouldings and ornaments had become weak in the extreme; it was then that Torrigiano, who had been brought to execute the monument of Henry VII., began the work of the Classic revival in England, which gradually gave Elizabethan art its origin. Torrigiano was not the first Italian who had come to work in Westminster. Peter, of Rome, with his companions Odericus and others, were brought from Rome by Abbot Ware in the reign of Henry III. to construct the magnificent Shrine of St. Edward—a work that occupied ten years in its completion. In this relic the Byzantine guilloche ornament and other Byzantine elements are elegantly mingled with Gothic forms which had been taken from windows in the Abbey. These same workmen, I would conclude, also constructed the tomb of King Henry III., for which Edward I. brought home beautiful slabs of marble from the East on his return to England from the Crusades. This tomb, with the exception of the effigy, is entirely Byzantine in character. The beautiful pavements in the Chapel of St. Edward, and in front of the altar, were also produced at this period; the style, however, did not extend in England. These mosaic works of Westminster Abbey, though much destroyed, bear sufficient evidence, even in their present dilapidated condition, of their equality with anything of a like style in Italy. I think it a disgraceful thing that the royal monuments of a great country like ours should be allowed to remain in such a state of dinginess.

Albert Dürer greatly influenced the arts of the Renaissance in Germany; his powers of ornamental design were great indeed; you have only to look at his beautiful designs for the borders of a prayer-book to know how great an inventor he was. Some of his religious designs would seem to us inappropriate, but this drollery was very general in German art. Dürer could draw so many things

well, that ornamental design was an easy matter to him.

The leaf ornaments and others of the Byzantine and Romanesque periods are well worthy your attention. The general simplicity and holdness of these patterns is much to be admired. The purest work of the Byzantine school is to be found in the church of Santa Sophia, at Constantinople; it was the oriental manner of treating Classic details that gave rise to this style. This school of ornament was very abundant in its results and influences, the Byzantine gradually working into the Romanesque. The patterns are sometimes very ingeniously interlaced; their foliage partook more of the nature of the thistle than the acanthus, and was frequently indented with a deep angular cut: you may sometimes see patterns merely matted.

In the Romanesque period the variety of the ornament was very great; supports in this style were not frittered away with a superfluity or too deep sinking of ornament. The introduction of interlaced fabulous animals, after the manner of the Celts, is also remarkable.

In our Early English period the conventional ornament is very pleasing, and the effort that was always made in the best period to show the stalk well in the capitals is much to be admired; like every other style, it loses much of its effect by mere copyism, as I have seen in some churches exact copies, as to their details, of existing examples, but this was done at the time when everything in the Gothic way should be supported by authority, like the similar era in Classic art, and works were considered perfect in proportion to their closeness of resemblance to some existing example. In the Decorated period leaves were more closely copied, while in the Perpendicular period they assumed a lumpy angularity, neither conventional nor natural.

The adaptability of Celtic ornament to ornamental design is very great; its construction should not be too intricate or crowded, as that often has the effect of confusing the work. For the truth of the assertion that it has got quite a grammar of ornament of its own, I would refer you to Mr. O'Neill's excellent work on the Ancient Irish Crosses. That the origin of many of the ornaments on these crosses was pagan, I have no doubt; that the crosses themselves were Christian, is, I think, equally certain. When Christianity was proclaimed to the early inhabitants of these countries, and symbols of man's redemption were erected as memorials of the departed and edifying to the living, the ornament of the natives, though pagan in its character, was used to decorate them. As in early Christian times in Rome and elsewhere, the architecture of the pagan was used until the Christian religion ultimately developed the Byzantine style for itself.

I was much struck with one of the objects found when the foundations were being made for the new Synod Hall at Christ Church Cathedral, on the site of St. Michael's Church, which was shown me by Mr. Dooling, the very efficient and intelligent clerk of works; it was a portion of horn that had evidently been notched over by one of the early inhabitants of this country. There they were, perfect runes accurately though rudely interlaced.

That many of the Celtic remains may belong to the pre-Christian era, is quite possible; that Christianity adapted to its uses its style and ornaments, is undeniable. I would suggest that such a piece of ornament as that generally known at Cashel as the Tomb of King Cormac, might quite possibly have belonged to the pre-Christian era. In sculpture, in metal-work, and illumination, this style is alike excellent. The style called Anglo-Saxon had evidently its rise in this country, whence in the early times of the church pious men went to found the religious houses of Lindisfarne and Iona. There is a good deal of Celtic ornament scattered about the Isle of Man and Iowa, and at St. Bee's Priory Church, Whitehaven, is to be seen some Celtic ornament of an early date; but that none of these have the pure character of the Irish ornament, may readily be perceived by a careful examination of the published works on the subject. The beautiful Adare Chalice—a mine of wealth in the ornament of this style—shows the zenith of perfection that it attained to in metal, and is a precious relic of which any museum might be proud. That this style of ornament may be well adapted to architectural purposes, a work in this city by Sir Digby Wyatt (whose universal love of art could not fail to be impressed with the opportunities afforded by such a perfected style as this) ably attests.

In the course of an address like this it is quite impossible to go closely into the different schools of ornament. My endeavour has been to arrest your attention to looking closely into them yourselves. There are many important schools of ornament, such as the Moresque and Arabic, Chinese and Japanese, to which I have not even alluded; they are all of them most delightful fields of research. The two former are especially beautiful, but into



their intricate and subtle beauties I cannot enter on this occasion. The beautiful geometrical forms of the Moorsque wall-decoration and system of pendentive arching cannot fail to delight anyone who has had the pleasure of seeing Mr. Owen Jones' beautiful decoration of the Alhambra Court in the Crystal Palace. On a future occasion, if you will allow me, I will endeavour to point out to you the beauties of this style of art.

## THE ARRANGEMENT OF HOUSES.

BELFAST ARCHITECTURAL ASSOCIATION.

At a recent meeting of the Belfast Architectural Association (Alexander Tate, Esq., C.E., County Surveyor, Antrim, in the chair) Dr. H. MacCormac read a very able and interesting paper on "The Arrangement of Houses considered in reference to Sanitary and Artistic Requirements." He said—

The subject may be fitly arranged under seven heads—namely, air, water, sewage, light, warmth, convenience, grace. It is quite superfluous to argue the question of the importance of air. If we do not exactly live to breathe, it is very certain we must breathe to live. We cannot, indeed, subsist on air alone, and yet not the less is air, next to water, our principal food. Without it we cannot so much as exist. To a very large extent the purity or impurity of the air we breathe forms the measure of the purity or impurity of our organic life, the standard of health and strength, the regulator of the hour of death. Eight ounces more or less of carbonaceous waste leaves, or ought to leave, through the medium of the lungs, the organism daily. The act is needful absolutely to health and vitality. If it be imperfectly performed, the organism suffers, the retained waste lodges within the economy, and, as I allege, is as thus productive of disease and premature decay. The way, the only way, to get rid of the carbonaceous waste is to breathe at all times air fully charged with oxygen, and, very especially, not to inhale a second time the same air. Pure air contains about 21 per centum of oxygen with a trace of carbonic acid, while air once breathed contains 4 per centum of carbonic acid, not to mention other impurities, and is quite unequal to the requirements of animal life—in fact, is productive of disease and death in the measure of its impurity accordingly. The Almighty Ruler of the Universe, through the operations of what we term Nature, takes incessant care of His children—not only bestows pure air in abundance, but, under the form of what is called ozone or ozone, actually duplicates, so to speak, to a certain extent the oxygen, the better to provide for our requirements. What we do, however, is to build up barriers of wood and stone and glass and iron, and thus shut out the ozone. And not only do we this, but we shut in the tainted air as well. How is ozone to permeate glass, or oxygen to penetrate stone? It would be amusing, if only it were not just so very tragical. Our architect, well and duly advised, constructs for us a dwelling. Not a stringcourse, a crocket, or a pinnacle is wanting. The stones, in fine, are duly laid; nothing is absent; the decorations are complete. One thing, however, is wanting, and that is a provision for renewed air. What is a house for, if not to live in? And, if so, is not breathing pure air a very essential part of living? Failing in that, a house fails in one of its most essential and fundamental requirements. It is, in some respects, a heartbreaking thing to go through a large town—any town, indeed,—look at the houses, and then survey the inhabitants. A properly-renewed atmosphere is but too surely absent in the one, while the frequent pallor of disease bespeaks the results of the deadly omission in the other. The windows, then, I would have constructed three parts sheeted glass, with guard outside to open like a door below, while the upper part, provided with large sheaves, should be made to pull down, like our ordinary guillotine sash, above. The glass in such casements it would be so easy and so safe to keep bright and clear, while they could be readily thrown open so as to admit an ample mass of air. But I would further duplicate the upper portion of the sash, and so connect it by means of hinges and weights and cords, that when the sash was pulled down the indraught should be directed towards the ceiling and not upon the heads of the inmates of the chamber. The arrangement in question—something similar to which was carried into practice by the famous Dr. Fordyce, as well as quite recently by my distinguished friend, Dr. Jarvis, of Dorchester, Massachusetts—has been introduced, at my recommendation, with very satisfactory results, into a chamber where many compositors stand at case. The midnight atmosphere, previously well nigh intolerable, is of summer temperature and comparatively pure, even during the coldest nights. The arrangement here adverted to enables us to admit just as much or as little air as we please. It

would prove suitable for sleeping-chambers and sitting-rooms alike, and, by effectively renewing the atmosphere, would tend, I believe, to greatly lessen the disastrous frequency of chronic pulmonary disease.

2. If we cannot exist without breathing, it is equally certain that we cannot subsist without drinking. Water in its purity is only less essential than renewed air. If permitted, it proves the ready vehicle of almost every species of foulness—the poison of cholera, of fever, and even the ova of various parasites. Water absorbs poison from the ambient air, when poison is present, just as air itself is contaminated by pestilential water. Water in some places, as the city of Mecca, is sold in pint measures; and it is only when we transport ourselves in imagination to a place where the supply has run short that we can form any idea of what a water famine really is. Think, only think, of falling short of water at sea, or the horrors of the desert transit, when man's life hangs on a few drops of drink. We, each of us, need about 3 lbs. of fluid food, in some shape daily. Water, in fact, constitutes six parts out of seven, if not more, of the living organism. And yet, owing to faulty arrangements and gross neglect, water, not only contaminated by foul air, but by graveyard and sewage drainings, has been, I fear still is, employed as pabulum for the wondrous, the glorious animal frame. Soft water, I am of opinion, is better suited for organic requirements than hard, and certainly better adapted for the preparation of food. The horse, no mean judge, water regarded, will not so much as look at hard water when he can obtain soft. It is a truism, then, most true that pure water should alone be consumed. Municipalities ought to see to it, our towns should be abundantly supplied. But, meanwhile, let me speak of a supply which subsists at our very doors, and which has never yet been turned to adequate account. I mean the rainfall. In rain, indeed, we have a bountiful provision, nature distilled, for culinary and drinking purposes, in fact, unlimited. But what, some may say, of the blacks and the smoke through which the rainfall must pass? The objection, however, is quite invalid. Every drop, strained through carbon or other filters, might be rendered crystal clear, at once tasteless and inodorous, and preserved in tanks, slate-stone, or iron of adequate capacity. The Turks in their immense brick reservoirs, lined with a hard, impervious cement, composed of quicklime, chopped cotton, and linseed oil, have set us an example which we might, I think, profitably follow. Any of the great filter companies would gladly arrange so as to enable us to obtain, everywhere, a water supply, absolutely pure and untainted, adequate, more than adequate, for every household requirement throughout the year.

3 The practice of having sewage ducts beneath our dwellings, and running along the thoroughfares, is really almost as reprehensible as is the savage custom of intramural sepulture. It is, indeed, a practice replete with mischief. Sewage taints too often our water supplies, poisons the very air we breathe. Feculence, of whatever kind, should with all convenient speed be consigned to the soil. There and there only, it is in its proper place, and, through Nature's kindly alchemy, instead of generating disease and death, becomes the genial pabulum of food and flowers. The successes achieved in different parts of England and Scotland through sewage culture are truly remarkable. But they are, perhaps, exceeded in the results obtained through its application to a desert tract of soil, previously entirely unproductive, but now rife with fertility, included in one of the loops of the Seine, not far from Paris. Liquid manure, which has various drawbacks, I would have none of. To obviate these drawbacks I have proposed and published the particulars of what I would term a sanitary humus, consisting of dried brick or other earth mingled in moderate proportions with the three sulphates of lime, alum, and iron, together with a small quantity of free sulphuric acid. A bin, containing a sufficiency of this humus to last six or twelve months, might be constructed in the attics of every house, with valved shoots to the different floors, and proper receptacles below. In this way a dangerous nuisance would be got rid of, and a compost of the utmost value, now lost, secured for the fertilisation of the soil.

4. The necessity of light to living organisms needs very greatly to be insisted upon. Plants in cellars and in mines are not more pallid and etiolated than are numerous human beings condemned to an existence, bereft of the genial influence of light. Air and light, indeed, are infinitely essential—one, perhaps, as much as the other; and no dwelling, whether for man or brute, ought to be constructed without the proper complement of both. Colour, as a form of light, is, I am persuaded, of very great moment. Practical inquiries, of a most interesting character, have been entered into, both in Italy and America, as to the

influence of certain tints on vegetable and animal life and growth. Colour is important as an element of cheerfulness to the young, and not without its influence on those who are no longer young. The dreary washed-out hues that meet the eye in so many directions are provocative of anything but cheerfulness. Vainly does Nature offer us the glories of the rising and setting sun, the wealth of colouring in flowers, the birds of the air, the fish of the sea. We clothe ourselves in sadness; inside and out our houses display the same dull tints, not only opposed to cheerfulness, but also to the health, which, without a doubt, cheerfulness so much tends to promote—in fact, colour is a joy and a happiness in itself, and the painter who fails to excel in colour had better cast palate and brush aside. There were fire opals in the recent International Exhibition, from Queensland I think, whose changeable, iridescent hue it was a perfect luxury to contemplate. In a paper by Babinet, of the French Institute, on precious stones, which appeared some years since in the *Revue des Deux Mondes*, he goes into a sort of ecstasy when he comes to speak of the red ray of the prism as transmitted through the ruby. I am myself most fully convinced of the desirability of colour, and the efforts of the fair sex, with the example of Easteris, notwithstanding, do not consider it half enough attended in our abodes and general surroundings.

(To be continued.)

## CREMATION AS A SANTARY AGENT.

(Continued from page 28.)

ONE of the many social questions waiting to be solved, and which must be solved at no very remote period, is, which of these various forms of treatment of the dead is the best for survivors? This question may be regarded from two points of view, both possessing importance—not equally perhaps, but neither can be ignored. A. From the point of view of Utility; as to what is best for the entire community. B. From the point of view of Sentiment; the sentiment of affectionate memory for the deceased, which is cherished by the survivor. I assume that there is no point of view to be regarded as belonging to the deceased person, and that no one believes that the dead has any interest in the matter. We who live may anxiously hope—as I should hope at least—to do no evil to survivors after death, whatever we may have done of harm to others during life. But, being deceased, I take it we can have no wishes or feelings touching this subject. What is best to be done with the dead is then mainly a question for the living, and to them it is one of extreme importance. When the globe was thinly peopled, and when there were no large bodies of men living in close neighbourhood, the subject was an inconsiderable one and could afford to wait, and might indeed be left for its solution to sentiment of any kind. But the rapid increase of population forces it into notice, and especially man's tendency to live in crowded cities. These is no necessity to prove, as the fact is too patent, that our present mode of treating the dead—namely, that by burial beneath the soil—is full of danger to the living. Hence intramural interment has been recently forbidden, first step in a series of reforms which must follow. At present we who dwell in towns are able to escape much evil by selecting a portion of ground distant—in this year of grace 1873—some five or ten miles from any very populous neighbourhood, and by sending our dead to be buried there, laying by poison, nevertheless, it is certain, for our children's children, who will find our remains polluting their water sources, when that now distant plot is covered, as it will be, more or less closely by human dwellings. For it can be a question of time only when every now waste spot will be utilized for food-production or for shelter, and when some other mode of disposing of the dead than that of burial must be adopted. If, therefore, burial in the soil be certainly injurious either now or in the future, has not the time already come to discuss the possibility of replacing it by a better process? We cannot too soon cease to do evil and learn to do well. Is it not, indeed, a social sin of



no small magnitude to sow the seeds of disease and death broadcast, caring only to be certain that they cannot do much harm to our own generation? It may be granted, to anticipate objection, that it is quite possible that the bodies now buried may have lost most, if not all, their power of doing mischief by the time that the particular soil they inhabit is turned up again to the sun's rays, although this is by no means certain; but it is beyond dispute that the margin of safety as to time grows narrower year by year, and that pollution of wells and streams which supply the living must ere long arise wherever we bury our dead in this country.

Well then, since every buried dead body enters sooner or later into the vegetable kingdom, why should we permit it, as it does in many cases, to cause an infinity of mischief during the long process? Let us at this point glance at the economic view of the subject, for it is not so unimportant as, unconsidered, it may appear. For it is an economic subject whether we will or not. No doubt a sentiment repugnant to any such view must arise in many minds, a sentiment altogether to be held in respect and sympathy. Be it so; the question remains strictly a question of prime necessity in the economic system of a crowded country. Nature will have it so, whether we like it or not. She destines the material elements of my body to enter the vegetable world on purpose to supply another animal organism which takes my place. She wants me and I must go. There is no help for it. When shall I follow—with quick obedience, or unwillingly, truant-like, traitor-like, to her and her grand design? Her capital is intended to bear good interest and to yield quick return: all her ways prove it—"increase and multiply" is her first and constant law. Shall her riches be hid in earth to corrupt and bear no present fruit; or be utilised, without loss of time, value, and interest, for the benefit of starving survivors? Nature hides no talent in a napkin; we, her unprofitable servants only, thwart her ways and delay the consummation of her will. Is a practical illustration required? Nothing is easier. London was computed, by the census of 1871, to contain 3,254,260 persons, of whom 80,430 died within the year. I have come to the conclusion, after a very carefully-made estimate, that the amount of ashes and bone-earth, such as is derived by perfect combustion, belonging to and buried with those persons, is by weight about 206,920 lb. The pecuniary value of this highly-concentrated form of animal solids is very considerable. For this bone-earth may be regarded as equivalent to at least six or seven times its weight of dried but unburned bones, as they ordinarily exist in commerce. The amount of other solid matters resolvable by burning into the gaseous food of plants, but rendered unavailable by burial for, say, fifty or a hundred years or more, is about 5,584,000 lb., the value of which is quite incalculable, but it is certainly enormous as compared with the preceding. This is for the population of the metropolis only: That of the United Kingdom for the same year amounted to 31,483,700 persons, or nearly ten times the population of London. Taking into consideration a somewhat lower death-rate for the imperial average, it will at all events be quite within the limit of truthful statement to multiply the above quantities by nine in order to obtain the amount of valuable economic material annually diverted in the United Kingdom for a long term of years from its ultimate destiny by our present method of interment. The necessary complement of this ceaseless waste of commodity most precious to organic life, and which must be replaced, or the population could not exist, is the purchase by this country of that same material from other countries less populous than our own, and which can, therefore, at present spare it. This we do to the amount of more than half a million pounds sterling per annum. Few persons, I believe, have any notion that these importations of foreign bones are rendered absolutely

necessary by the hoarding of our own some 6 ft. below the surface. The former we acquire at a large cost for the original purchase and for freight. The latter we place not in the upper soil, where they would be utilised, but in the lower soil, where they are not merely useless, but where they often mingle with and pollute the streams which furnish our tables; and, in order to effect this absurd, if not wicked, result, we incur a lavish expenditure. I refer, of course, to the enormous sums which are wasted in effecting burial according to our present custom—a part of the question which can by no means be passed over. For the funeral rites of the 80,000 in London last year, let a mean cost of £10 per head be accepted as an estimate which certainly does not err on the side of excess. Eight hundred thousand pounds must therefore be reckoned an absolute loss, to the costs already incurred in the maintenance of the system. Thus we pay every way and doubly for our folly.

What, then, is it proposed to substitute for this custom of burial? The answer is easy and simple. Do that which is done in all good work of every kind—follow Nature's indication, and do the work she does, but do it better and more rapidly. For example, in the human body she sometimes throws off a diseased portion in order to save life, by slow and clumsy efforts, it is true, and productive of much suffering; the surgeon performs the same task more rapidly and better, follows her lead and improves on it. Nature's many agents, laden with power, the over-action of which is harmful, we cannot stop, but we tame, guide, and make them our most profitable servants. So here, also, let us follow her. The naturally slow and disagreeable process of decomposition which we have made by one mode of treatment infinitely more slow and not less repulsive, we can by another mode of treatment greatly shorten and accomplish without offence to the living. What in this particular matter is naturally the work of weeks or months, can be perfectly done in an hour or two. The problem to be worked is, Given a dead body, to resolve it into carbonic acid, water, and ammonia, and the mineral elements, rapidly, safely, and not unpleasantly. The answer may be practically supplied in a properly constructed furnace. The gases can be driven off without offensive odour, the mineral constituents will remain in a crucible. The gases will ere night be consumed by plants and trees. The ashes or any portion of them may be preserved in a funeral urn, or may be scattered on the fields, which latter is their righteous destination. No scents or balsams are needed, as on Greek or Roman piles, to overcome the noxious effluvia of a corpse burned in open air. Modern science is equal to the task of thus removing the dead of a great city without instituting any form of nuisance; none such as those we tolerate everywhere from many factories, both to air and streams. Plans for the accomplishment of this have been considered; but discussion of the subject alone is aimed at here. To treat our dead after this fashion would run millions of capital without delay to the bosom of mother earth, who would give us back large returns at compound interest for the deposit.

(To be continued.)

## TO CORRESPONDENTS.

**A NEW OFFICE.**—Some relatives, we suppose, will be found and appointed by the Town Council to look after, prune, and water the trees being planted in Sackville-street. It would be a shabby act to pay the City Gardener less than £300 a-year. What does Mr. French, T.C., say?

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**CIVIL ENGINEER (Cork).**—By all means send us the particulars. Plans were furnished years since for the same work. It would be well to know how the present undertaking is to be accomplished.

**O'GRADY versus CARDWELL.**—We have not lost sight of this suit. If we remember aright, we have made some remarks about it on a former occasion, but it calls for further comment in the interest of the building profession.

**GAS-METER.**—The subject is remarked upon elsewhere.

**A CITIZEN.**—The Scavenger Committee have no funds. Like the woman who borrowed her neighbour's pitcher, and said, by way of excuse for cracking it, "It was broke when I got it, and it is broke as I'm leaving it at home, and broke I hadn't it at all." There were funds once to be had, but that was a period when honest men lived upon the world. Magazines, pamphlets, &c., will be noticed in next issue.

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*From WILLIAM TITE, Esq., M.P. for Bath, and Architect of the Royal Exchange, London.*  
House of Commons, 2nd March, 1864.  
DEAR SIR,—In reply to your note, I beg to say that I have used both the sorts of Cement manufactured by your firm, and that of Messrs. Francis and Son; I mean the Cement usually called Roman Cement, or the more recent introduction of Portland Cement. I believe these Cements, manufactured by either of your firms, to be equally good. I know no difference, chemically or practically, between them; and I should use, and authorize to be used indifferently, either one or the other. You are at liberty to use this note, if you think it necessary.—I am, Dear Sir, your obedient servant,  
Messrs. White & Son. (Signed) WILLIAM TITE.  
*From R.O. MINNIE, Esq., Surveyor to Board of Ordnance, London.*  
War Office, Pall Mall, London, S.W.,  
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(Signed) R. O. MINNIE, Surveyor.

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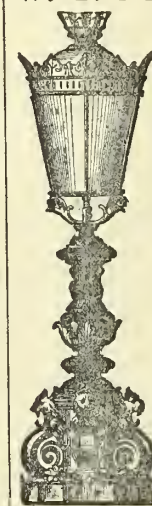
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# The Irish Builder.

VOL. XVI.—No. 340.

## The Conservatism of Public Health.

**W**E are not politicians in the ordinary sense, but now that a change of Government is inevitable, and as the Conservatives are twitted with being a party with no policy, it remains for them to prove that they are capable of moulding one. Disraeli is a man of intellect and discrimination, and he has lived long enough to know that there still are many urgent wants unattended to, and which call for instant attention. One of the most vital and important of these is that in regard to the public health, and sanitary legislation thereon. If the Conservative leader desires to earn the gratitude of the nation, and win a name that will be remembered hereafter with pride, and honoured apart from the mere party politics of his day, there is no work that he can undertake more calculated to achieve than that end than a well-digested measure of sanitary reform.

The public health as it now exists needs improvement as well as conservation, for the latter would be only the preservation of a very defective and unsatisfactory state of things. The basis or foundation of a sound and stable public health needs to be raised, and there are doubtless some obstructions and difficulties in the way in shape of personal and vested interests. These, however, will have to give way, despite of factious opposition, no matter from what quarter provoked. A well-digested measure of sanitary legislation is absolutely necessary before we can talk of preserving the public health. When that is established, it will be time to talk of its conservation.

The efforts of the Gladstone Government in a sanitary direction, though perhaps well intended, have fallen far short of what the nation required. In regard to sanitary reform, there is no need of groping our way. The fundamental laws of health are well known, and the measures necessary to enforce the observance of these laws ought not to be wanting.

This question of public health in view of the future is not a mere medical or doctor's question, but it is one inseparable from architectural and engineering practice. If men are to be found mad enough at this hour of the day to endeavour to eliminate the engineering part of the question, and make it merely subsidiary in measures of sanitary administration, woe be to the nation and to our posterity. Men talk flippantly of sanitary matters;—even still pet phrases are in vogue, and pretentious busy-bodies hold forth with a volubility of utterance which, if they practically understood what they were talking about, would greatly commend to their credit. Even among the medical profession there are a number of individuals who have certainly leaped before they have looked, and who are brimful of remedies, but silent as to preservatives.

There are prizes in the future to be obtained, and we have little doubt but medical men will secure a fair share of them; but they must be aware that the more perfect become

our measures of sanitary legislation, the more limited must be the occurrence of the diseases that afflict our common humanity. The prevention of these diseases rests to a great extent upon the work that belongs to the province of the engineer and architect. Good house construction and perfect sewerage and drainage systems are indispensable to the preservation of the public health, and, to effect these desirable ends, building and sanitary acts are required. The law, however, will need to be strictly and efficiently enforced; for we have already witnessed its failure over the kingdom generally, in consequence of the manner in which it is administered by those authorities on whom it devolves.

Much as we may wish to uphold and preserve the privileges attaching to local government, we must confess that the composition of our local boards is not at all up to the standard that the performance of public duties requires. Corruption is manifest in many of them, and representation is trafficked in to the personal advantage of members thereof. If even the sanitary enactments now and for some years back in force were honestly carried out, our cities and towns would be in a far better sanitary condition.

A change is needed in the matter of appointments, and neither medical officers of health, borough surveyors, nor sanitary inspectors should be entirely at the mercy of or responsible only to local boards. We know that many members of local bodies throughout the three kingdoms are themselves the greatest offenders against the public health, and that every day many of them are openly violating the provisions of the acts with perfect impunity. How can officers whose appointments are dependent upon the votes of their masters exercise sufficient independence to efficiently perform their duties? The men whose votes have put our sanitary officers into office can put them out, without liberty of appealing to a higher power. Of course if officers neglect their duties, they should be removed; but it should be rendered impossible for honest and efficient officers to be dismissed on mere charges trumped up of neglect or incapacity, without an inquiry on the part of a central power.

When we consider the various duties that constitute an efficient sanitary supervision, we think that it is highly necessary that the qualifications of sanitary officers of all kinds should be of a pretty high order. A man may make a very good relieving officer of the poor, a road foreman, or a rate collector, but it does not necessarily follow that such a person is fitted for a sanitary inspector; yet we have known several instances where the holders of the former succeeded to act in the latter capacity. Nay, more—we have known army pensioners, hall porters, prison warders, and overseers of casual wards in our workhouses to be elected, through influence, over the heads of really capable and practical men to fill the offices of sanitary inspectors. We have known them to take place in England and Scotland as well as in this country.

Here in Dublin we have police constables acting as sanitary officers, but, though they may hunt up offenders of the ordinary kind fast enough, they know next to nothing of the practical knowledge necessary for the due performance of their duties. What do these classes of individuals we have enumerated know about drainage or sewerage in

connection with buildings or streets? What do they know about defective house construction, vile building materials, or the viler foundations the houses they are supposed to inspect are built upon? Borough surveyors and medical officers of health tell us often in their reports that they have deputed certain sanitary officers to inspect certain districts. If the inspectors find a nuisance, and understand its nature, they may report it; but there are numerous evils or nuisances existing which, though they may look upon or walk over, yet they are unconscious of the fact. Without at all underrating the intelligence of our medical officers of health, we must candidly say that the great majority of them at present are but little better practically informed of the many evils existing to the danger of the public health, than the sanitary inspectors themselves.

It is not to be expected that medical men in general are to be practically acquainted with house building or house drainage, warming, ventilation, water supply, and sundry other matters. They have one peculiar, special, and established province, and we shall not gainsay their abilities in their own field. We take issue with them, however, on matters that never can legitimately become a part of their profession; and on these grounds we claim for our own constituency and order the supervision and control of the duties that by right belong to them.

We are still only in the infancy of sanitary labour and sanitary administration. The great work of the sanitary engineer is still to be mapped out and begun. The drainage areas of the country, the water supply, the utilization of our sewage, the consumption of our noxious vapours, gases, and smoke, the conversion of dangerous and waste substances into economical uses, and various other cognate matters having a close connection with sanitary reform, await attention, and will needs have to be attended to. This work devolves upon practical minds and hands.

The vexed questions connected with the refuse of our manufactures and the pollution of our rivers is an engineering work of great importance, and it will need a wise legislative measure, and an efficient one, to properly grapple with the difficulty, on account of the many varied interests involved.

Here, then, is work for a Conservative Government, and, if in office, the sooner they initiate a grand measure of sanitary reform over the three kingdoms the better it will be for their own fame and the prosperity of the British Islands.

## EDUCATION AND LABOUR.

THE progress of education during the last quarter of a century has led to some remarkable changes in the condition of the working army of labour. Mechanics' institutes, schools of art, working men's clubs, free libraries, and the establishment of public museums, coupled with the rapid development of a cheap newspaper and periodical literature, have contributed to this end.

Machinery, and its application to many new forms of manufacture, has also led to vast changes. Old branches of trade have, by the application of machine labour, been divided and sub-divided into many smaller branches, and in some instances half-a-dozen of departments of organised and divided labour in the



one trade exist where only one had formerly existed. This change in the process of reproduction has come through the employment of large capital and the utilization of machinery. Manual labour has been greatly superseded in several branches, and no doubt the transition has been effected at the cost of severe hardships to many workmen. Working men are better educated and better dressed than formerly, and an improvement has taken place in their homes and surroundings.

A belief exists, however, in the minds of the many—strengthened of late by the establishment of the school boards in the sister Kingdom—that a time will shortly arrive when it will be difficult to obtain working men to perform any severe or repugnant forms of manual labour. These persons argue that the more a man is educated, the greater is his distaste for inferior forms of labour. In the opinion of these people the facility by which education may be obtained by the children of working parents will render such callings as scavengers and the ordinary labourers impossible. What then? Why, if we carry the subject further for the satisfaction of these folk, we must admit that titled lords and mid-gloved gents must pull off their gloves and take up the mattock and spade; that architects and builders must merge their professions in that of the workmen, and work for themselves and others; and that masters and mistresses must “stoop to conquer,” and be their own servants. As regards the latter contingency we confess we can see little harm in the occurrence, for it would be a decided improvement on present ways if masters, and particularly mistresses, learned the necessity of doing a little more household and personal duties for themselves than they do at present.

For the comfort of our visionary friends, let us assure them that there exists no occasion for their feeling alarmed about the future of education and labour. Their bones will have long crumbled back into dust, and those of their great grandchildren, before the world feels any dearth of human manual labour. As there was in the beginning, so there will be to the end, though not exactly under the same conditions—hewers of wood and drawers of water. Serfs or despised beings, they will not be, however. No matter how humble may be the calling, there will be a dignity and a profit connected with it, as it will be a worldly necessity.

The true tendency of education is to make the man more manly, and, while giving him an improved knowledge, to make him understand and feel that all forms of labour honestly pursued carry with them honour, respect, and dignity. Year by year science and art are lightening men's burdens in respect to toil. The great majority of the world will never escape from the necessity of labour, no matter to what extent education in the interests of the working population is pushed. Were we to imagine at any future date a great tendency on the part of any society to escape from labour, what would be the obvious result? The effort would end in abortion.

In our present state of society we may overcrowd a profession or a number of professions with aspirants, and we are overcrowding more than one. At the present moment there are scores of highly-educated young men who, if they could begin life again, would have articulated themselves to mechanical and mercantile callings, instead of wasting a number of the best years of their lives wearily waiting and seeking for practice in a profession where there are a glut of candidates. There exist several new fields of industry at present for men who are not above the labour of their hands, and every year is opening up other fields where a good practical education, coupled with a desire for work, would soon bring a competence, and with it a happiness.

Give the dustman's sons and daughters a useful and practical education; give the sons of the humblest mechanic the same. If the seed falls upon a good soil, the result will be beneficial to the individuals and to society. Self-culture may supplement the work of the schoolmaster; and if it should turn out that

one or more of the dustman's sons are children of genius, that genius will make way and assert itself.

The field and the workshop have furnished examples long centuries ago of men who have ruled the world, and revolutionised it in science and art. Cincinnatus leaving the plough to guide the helm of State, and George Stephenson leaving the mine to develop steam power in the locomotive, are examples that should not be forgotten. Our visionary friends may twit us by the query—“Would Stephenson go back to the coal mine again after he lifted himself from drudgery?” To which we reply, There existed no necessity for Stephenson to resume his original form of labour. His practical knowledge and talent rendered him in his new sphere indispensable to society, and his labours and struggles entitled him to dignity, ease, and just reward for the remainder of his days. The humblest labourer, if he lifts himself up from drudgery, very naturally, if reverses overtake him, does not like to return to his original calling; but if the fates are against him for awhile, and he cannot do better, there is no dishonour in the submission.

The effect of education on some shallow youths may lead them to over-estimate their abilities, and despise their parent's calling. Still the world is free to them; and if they can map out a successful career for themselves, so much the better. No matter how fast the population may increase, and how diversified the industries of the country, the laws of supply and demand will have to be recognised. If there are too many idle gentlemen in the market, they must live at somebody's loss. If there are too many school-masters, professors, doctors, lawyers, or building artisans in a given place for the demand, necessity will force them to shift elsewhere, where the demand is greater. Too much education or skill, like too much food, may be concentrated at a given point. The body cannot absorb more food than it naturally requires, without endangering health and life; and the skilled labour in the market of any city may be more than can be utilised under existing conditions. Without the field of industry being widened, the surplus hands, to secure employment, will need to work at a cheaper wage. It may happen also at times, no matter how low the wage men may offer to work for, employment becomes impossible for them in a limited area.

It should be remembered also that the educated man, whether he be one of the professions or a skilled artisan, is doubly armed against reverses. Education is no weight to carry; and if it is of a truly practical kind, it cannot fail at one time or another, no matter what may be the reverses of the honest workman, of lifting him up again. The tendency of science is to benefit the entire human race, and, while lightening the labour of the workers, to elevate them; so education must always co-exist with all forms of highly-skilled and profitable labour. What ceases to be profitable or beneficial by manual toil, will have to be performed by other appliances.

#### THE RECLAMATION OF WASTE LANDS AND FORESHORES.

LONG since we directed public attention to the reclamation of waste lands and foreshores in the neighbourhood of Dublin, North and South, and we pointed out that the work was quite feasible, and would eventually be highly profitable. Public attention is again directed to the subject through more than one channel. At a special meeting of the Corporation the surplus Church funds were introduced into a motion as an available source for drawing upon for the carrying out of several public improvements, and the sanction of her Majesty's Government is sought for the purpose.

Our contemporary the *Farmers' Gazette* recently gave a tabular statement of several baronies in the west, of which one-half were improvable waste lands, estimated at thirty years' purchase; and it recommended the Government to purchase with surplus Church funds, and resell in farms of various sizes, which the owners could improve on loans through the Board of Works.

The advice is worthy of consideration, as the Crown is now claiming all the foreshores of the three kingdoms, and no doubt it would be a very paying and reproductive work for the Government to reclaim and sell, as Holland has done with Haarlemmer. If the disputes as to ownership between the Crown and individuals can be at once put an end to by the validity of Government right, then all difficulty will be removed, and extensive reclamation of waste lands and foreshores is but a matter of time and labour.

We have in our own bay, says the *Farmers' Gazette*, “about 1,600 acres between Williamstown and the South Wall, which might be very easily reclaimed, with an average of 4 to 6 ft. at high water, compared with 14 to 16 ft. in Holland; and on the Clontarf shores about 600 acres. Taking all our rivers, coasts, and estuaries, we may put down the area of such tidal lands as about 800,000 acres. In Ireland six millions of the surplus Church funds will be amply sufficient as loan capital for the purchase and sale of our improvable waste lands, covering an area of 1,500,000 acres; for the reclamation and sale of tidal lands; for loans for arterial drainage; for the improvement of our fisheries; and, if the State thought well of encouraging the opening of collieries and starting peat machinery for making fuel, where good security would be given, these would benefit the country. In Holland all reclaimed lands are exempted from taxation for 27 years, except a drainage rate of 7s. per acre, which is about the same as in the Fen Country. Our waste lands ought to be free of county and local taxation for the same period.”

We heartily desire to see such work commenced all over the island, but more particularly in the County of Dublin, where land is becoming year by year more valuable. Whatever adds to the area of our arable lands, adds to the supply of food for our people. The more food the less want, if matters are properly regulated. If Ireland ever becomes a great manufacturing country—and we see no reason to prevent her,—then there exists the greater necessity, in view of the future, of reclaiming all her waste lands and foreshores in the circuit of the island.

#### THE TREES IN SACKVILLE-STREET.

WE think that better specimens of the *Platanus* or plane tree might have been obtained than those now planted. A contemporary says that, “well found with suitable soil, carefully planted, and efficaciously protected, the trees have now nothing to do but grow, and it is to be hoped they will pay attention to it.” Our farming contemporary is evidently of the opinion that, as the trees must have life to live, they must also have sufficient common sense to understand the first principles of self-preservation. Our contemporary ought to be aware that even in our squares there are only a few kinds of trees that grow, and that the atmosphere of our streets is often sufficient to kill as hardy a tree as the oak. The planting of the trees in Sackville-street can only be looked upon yet as an experiment, and we are in favour of seeing the experiment proving a success. We may add here that the iron girders that protect the trees were supplied by the house of Messrs. Kennan and Sons, Fishamble-street, and the fibry loam that surrounds the roots was procured from the Phoenix Park. The trees, when in foliage, will no doubt add a feature to Sackville-street; but the characteristics that give a charm to the French boulevards will be wanting, though perhaps their absence will not be felt in this city.



# NOTES ON THE ANCIENT ECCLESIASTICAL ARCHITECTURE OF IRELAND.

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THE GOBHAN SAOR.

I WOULD scarcely feel justified in concluding my notices of our early architecture without making some allusion to a personage who makes a remarkable figure in the traditions and folk-lore of the people; I allude to the Gobhan Saor, the reputed builder of not only our Round Towers, but of most of our ancient churches and castles. I have seldom visited any remarkable relic of antiquity that, after enquiring of the local peasantry by whom was it erected, I have not received the answer—"Sure it was the Gobhan Saor himself who built it."

The tradition is so general all over the country—north, south, east, and west—as to demand some attention, for there must certainly be some original foundation for so universal a myth. The question arises, Had it an origin in the fact of some one individual having made himself remarkable for his skill in building, at an early age; or from an association of artificers who, after the manner of the Free-masons of the middle ages, travelled in bands from province to province, executing works wherever their services were required? The late Dr. Petrie seemed to be of the former opinion, and his views on the subject are entitled to that consideration which his well-known reputation deserves. The name is one of some interest, being compounded of *Gobha*, a smith, and *Saor*, free, noble. Now it is very doubtful whether the word *Gobha* originally was applied to a worker in metals only; we have some evidence that it was applied to a skilled craftsman of any description, but there is no doubt the smith, in a primitive age, and among a primitive race, would be considered the most generally useful of all artificers, both in peace and war. O'Reilly gives us—"Saor, a., free, noble"; "*Saoranach*, s. m., a free-man"; "*Saorloch*, s., a mason"—literally a Free-mason. But we also have from the same authority—"Saor, s. m., a carpenter, wright, joiner, artist."

Now the highest and most important crafts among the Gaedhil were the smith, mason, carpenter, and artist, or worker in gold and silver, the fabricator of those beautiful personal ornaments which from time to time have been exhumed from the earth, and which are to be seen in our public and private museums. It is highly probable that these crafts had certain immunities and privileges, that they were *saor* or free, and that the term indicated their social status, and was not applied to designate any particular craft. This was in keeping with the social polity of the Gaedhil, who were accustomed to confer the highest distinctions upon personal merit; thus the bard and the Brehon ranked with nobility. In the term *Oc-Aireac* we recognise a title bestowed upon poets, and in *Bo-Aireac* another, accorded to one wealthy in cattle. In our own day royalty has not disdained to confer rank upon the sons of labour, as well as upon the poet, the historian, and the warrior; the contemned Gaedhil did the same at least fifteen hundred years ago. Noble dukes and marquises have in our own day entered the lists at cattle shows, and have contended with the squire and the yeoman in the production and rearing of the finest breeds. If the Gaedhil had not arrived at agricultural exhibitions and silver cups, they knew how to reward the enterprising and industrious *Brughaidh* who multiplied his herds and flocks to the general benefit of the community and his own profit; upon such was the honourable distinction of the *Bo-Aireac* conferred.

That the higher classes of craftsmen enjoyed certain immunities and privileges, and a certain and defined rank in the social

system, we have every reason to believe—that is, if they were lawfully inducted into the crafts, and were the sons of men who had followed the same occupation, for the higher classes of trades appear to have been hereditary in families. This is evident from a foot-note to Dr. Petrie's interesting monograph on "*Tara Hill*," published in the *Transactions of the Royal Irish Academy*, v. xviii., Sec. Antiq., p. 208. The note is as follows:—

"In the *Leabhar Buidhe Lecain*, col. 921, *et sequen.*, a curious classification of these tradesmen is given. The most distinguished of them is called *ollanah suadh sairsi*, i.e. ollave or head-tradesman, who was the builder of the *daimlings* and *duirtheachs*, that is of stone churches and penitentiaries. He is described as equal in dignity with the *airech ard*. The builder of *duirtheachs* only is ranked with the *airech dessa*. The next in point of rank after these are the chariot-makers, the house-builders, the smiths, the engravers, and *tuathais* or shield-makers, all of whom are ranked with the tanist *Bo-airech*. The next after these are the turners, ring-makers, embroiderers or shoe-makers, *circuire*s, and fishermen, all of whom are classed with a *fear-milbadh* of the lowest rank, if they be lawful, that is, if they have learned their arts according to law; but if they be *unlawful*, they have no rank, and receive no salary."

The above passage indicates the social status of the leading craftsmen of that remote age; but another quoted by the same writer lays down the law respecting their stipends or payments. The passage is taken from an ancient fragment of the Brehon Laws preserved in the Library of Trinity College, Dublin, H. 2, 16, and also in the *Book of Ballymote*, and is as follows:—

"If he be an Ollave professor of trades, who is entitled to twenty cows as his pay, i.e. if he be an ollave who possesses the mastership of trades, it is ordained that twenty-one cows be his pay. These are twenty-one cows for the Ollave of trades. And a month's refection to him, that is, a month is his full allowance of food and attendance, for although of old the Ollave tradesman was entitled to more than this, in reward for the versatility of his ingenuity, or for his perfect knowledge of dissimilar arts, still the author [of this law] refused to allow him more than the ollave in poetry, or the ollave in language, or the teacher. Wherefore what the author did was, to allow him two principal branches of the art as from the beginning, i.e. stone-building and wood-building, the most distinguished of these branches to remain as formerly, i.e. the *Damhliag* and the *Durthech*. Twelve cows to him for these, i.e. six cows for each, and to examine his original pay for the other departments, and to take a sixth part of the established pay for each of these departments [when not exercised by one and the same person] as his pay. Six cows for *ibroracht* (making yew vessels?), and six cows for *coithiges* (kitchen-building), and six cows for mill-building; take three cows from these, which added to the twelve cows which he has fundamentally, and it makes fifteen cows. Four cows for ship-building, and four cows for barque-building, and four cows for curach-building; take two cows from these, which added to the fifteen above, will make seventeen cows. Four cows for the making of wooden vessels, i.e. *ians* and *drolmachs* (tubs) and vats of oak, and smaller vessels in like manner, and two cows for *ruamairacht* (plough-making?); a cow from these, added to seventeen cows above, will make eighteen cows. Two cows for causeways, and two cows for cashels, and two cows for *clochans* (stopping stones); a cow from these, added to the eighteen above, will make nineteen cows. Two cows for carving, and two cows for crosses, and two cows for chariots; a cow from these to the nineteen above, makes twenty cows. Two cows for houses of rods, and two cows for shields, and two cows for bridges; a cow from these added to the twenty above, makes twenty-one cows for the Ollave builder, provided he has all his

arts in proficiency."—(Petrie; *Round Towers*, pp. 346, 7.)

In the foregoing extracts we have evidence of the existence of social arrangements very creditable to the civilization of our countrymen at the early period to which they refer; in them we find that the superior distinctions as well as remunerations were reserved for the building crafts—hence the application of the term *saor*, i.e., free or noble.

I have already alluded to the opinion expressed by Dr. Petrie respecting the age and individuality of the Gobhan Saor. The question is open to much controversy, neither can we, in my opinion, after such a lapse of time pretend to settle it; nevertheless, as the subject has been learnedly treated of by one who has earned the right of having his opinions and reasoning respected, I consider it but just to his reputation to place his views before my readers. The subject is introduced in connection with the age of the Round Towers, as follows:—

"But, whatever uncertainty there may be as to the existence of these buildings in St. Patrick's time, there can, I think, be little, if any doubt, that they were not uncommon in the sixth and seventh centuries. Of this fact we have a striking evidence in the architectural character of many of the existing Towers, in which a perfect agreement of style is found with the original churches, when such exist. As a remarkable instance of this, I may point to the church and tower at Kilmacduagh, the tower and churches of Glendalough, and many others, which it is unnecessary here to name. Nor can I think the popular tradition of the country is of little value, which ascribes the erection of several of the existing Towers to the celebrated architect, Goban, or, as he is popularly called, Goban Saer, who flourished early in the seventh century; for it is remarkable that such a tradition never exists in connexion with any Towers but those in which the architecture is in perfect harmony with the churches of that period, as in the Towers of Kilmaeduaich, Killala, and Antrim. And it is further remarkable, that the age assigned to the first buildings at Kilmacduagh, about the year 620, is exactly that in which this celebrated Irish architect flourished.—See page 348. It is equally remarkable that though the reputation of this architect is preserved in all parts of the island, in which the Irish language is still spoken, yet the erection of the oldest buildings in certain districts in the south and west of Ireland is never ascribed to him, the tradition of these districts being that he never visited or was employed on buildings south-west of Galway, or south-west of Tipperary. I have already alluded to the historical evidences which prove that the Goban Saer was no imaginary creation, however legendary the memorials remaining of him may be considered; and I may here add, that it would appear from a very ancient authority, namely, the *Dinnsenchus*, preserved in the Books of Lecan and Ballymote, that he was the son of a skilful artisan in wood, if not in stone also; and that this artisan was, if not a foreigner, at least very probably of foreign extraction, and thus enabled to introduce arts not generally known in the country; and further, that the Goban himself was probably born at Turvy, on the northern coast of the County of Dublin, which, it is stated, took its name from his father, as being his property, and which, as he was not a person of known Milesian origin, it is but fair to infer he received as a reward for his skill in mechanical art. This passage, the text of which is corrected from the two copies, is as follows:—

"Traigh Tuirbi, whence was it named? Not difficult. Tuirbi Tragmar, the father of Goban Saer, was he who had possession in that land. He was used to throw casts of his hatchet from Tulach in bhiall [i.e. the hill of the hatchet] in the direction of the flood, so that the sea stopped, and did not come beyond it. His exact pedigree is not known, unless he was one of those missing people who went off with the polytechnic



Sab, who is in the *Diamars* [Diamor, in Meath], of Bregia. *Unde Traigh Tuirbe dicitur.*

“Traigh Tuirbi, whence the name,  
According to authors I resolve;  
Tuirbi of the strand, [which is] superior  
to every strand,  
The affectionate keen father of Goban.

His hatchet was used to be cast after ceasing  
[from work];  
By this rusty large black youth,  
From the yellow hill of the hatchet  
Which the mighty flood touches.

The distance he was used to send his  
hatchet from him,  
The sea flowed not over it;  
Though Turbi was southwards in his  
district mighty,  
It is not known of what stock his race;

Unless he was of the goodly dark race,  
Who went from Tara with the heroic  
Lugh,  
Not known the race, by God's decree,  
Of the man of the feats from Traigh  
Tuirbi.

“It is not, of course, intended to offer the preceding extract as strictly historical; in such ancient documents we must be content to look for the substratum of truth beneath the covering of fable with which it is usually encumbered, and not reject the one on account of the improbability of the other; and viewed in this way, the passage may be regarded as in many respects of interest and value, for it shows that the artist spoken of was not one of the Scotie, or dominant race in Ireland, who are always referred to as light-haired; and further, from the supposition, grounded on the blackness of his hair and his skill in arts, that he might have been of the race of the people that went with Lughaidh Lamhfhada from Tara,—that is of the Tuatha De Danann race, who are always referred to as superior to the Scoti in the knowledge of the arts,—we learn that, in the traditions of the Irish, the Tuatha De Dananns were no less distinguished from their conquerors in their personal than in their mental characteristics. The probability, however, is that Turvy was a foreigner, or descendant of one, who brought a knowledge of art into the country not then known, or at least prevalent.”—(*Round Towers*, pp. 384, 7.)

The above extract, though curious, does not throw much light upon the age or character of the Gobhan Saor, and the writer is in error when he states that the traditions of the south assert “that he never visited or was employed on buildings south-west of Galway, or south-west of Tipperary.” On the contrary, his memory and works are as vivid in the folk-lore of Cork, Waterford, and Kerry, as in any other part of the country. Rathgobbin Castle, in the County of Cork, is said to have been built by him; Brigown, where stands an ancient church and Round Tower, is supposed to have been named after him, Brigh-Gobhann; and it is exceedingly doubtful if the churches of Ballyvourney and Kilgobinet, County Cork, which ecclesiastical authorities ascribe to a female saint, Gobnate, were not in olden times ascribed to the Gobhan. The same may be said of Kilgobinet, in Kerry, which existing local traditions ascribe, not to the female saint, but to a male one, whom they name St. Gobby.

The extract quoted from Dr. Petrie's work is, in my opinion, favourable to a greater antiquity for the old Gaelic Free-mason than he is disposed to assign him. The passage from the *Book of Lecan* refers to him as being of the Tuath-de-Danan race. Now the reading in that extract is borne out by another from the *Annals of Ulster*, which records the violation and plundering (by the Danes) of the great sepulchral mounds, some of which are still to be seen on the banks of the Boyne, near Drogheda, and which mentions one of these tumuli as being “the grave

of the wife of Gobhan.” The passage, as quoted by Dr. Petrie, is as follows:—

“A.D. 862. The cave of Achadh Aldai (New Grange, County Meath) and of Cnodhba [Knowth], and the cave of the sepulchre of Boadan over Dubhad [Dowth], and the cave of the wife of Gobhan, were searched by the Danes, *quod antea non perfectum est*, on one occasion that the three kings Amlaff, Imar, and Auisle, were plundering the territory of Flann, the son of Conaing.”—(*Round Towers*, p. 103.)

It is here quite evident that the wife of some remarkable and distinguished person was interred in the sepulchral chamber of one of these great tumuli, and not only so, but that it had been expressly erected for her, as it is emphatically named “The Cave of the Wife of Gobhan.” Now, if the primeval cemetery at New Grange was constructed by that mythic race or caste known in bardic history as Tuath-de-Dananns, Gobhan must have been of the same tribe; and, could we fix the age in which these monuments were constructed, we would have some clue to the age of this Gobhan, whom I suspect may have been the original Gobhan Saor, whose traditionary fame as a builder has come down to our times. The question may be fairly asked, Upon what grounds do you attribute the erection of the tumuli at Brugh-na-Boinne to the Tuath-de-Dananns? The evidence is contained in a very ancient tract entitled *Senchas-na-Relee*, i.e., the History of the Cemeteries, which is contained in that very remarkable collection of tracts known as the *Leabhar na hUidhre*, originally compiled at Clonmacnoise and transcribed by Moelmuiri, the son of Ceileachar, a distinguished *litterati* who flourished in the twelfth century at that famous abode of learning. Referring to this tract, Dr. Petrie writes:—

“Judging from its language, its age must be referred to a period several centuries earlier than that in which its transcriber flourished.” And further on he observes “that this tract is glossed in the original evidently by Moelmuiri himself.”—(*Round Towers*, pp. 97, 8.) This tract gives an account of the great regal cemeteries of Ireland, in the various provinces, and the tribes or races by whom they were established and used. The entire original text has been published by Dr. Petrie in his well-known work, with a translation, from which I take the following extracts in relation to the Brugh-na-Boinne:—“These were the chief cemeteries of Erin before the Faith, [i.e. before the introduction of Christianity,] viz. Cruach, Brugh, Tailltiu, Luchair Ailbe, Oenach Ailbe, Oenach Culi, Oenach Colmain, Temhair Erann.”—(p. 100.) The author then goes on to describe the situation of each cemetery and its history; in relation to Brugh, he has the following:—“The nobles of the Tuatha De Danaun were used to bury at Brugh, (i.e. the Dagda with his three sons; also Lughaidh, and Oe, and Ollam, and Ogma, and Etan, the Poetess, and Corpre, the son of Etan,) and Cremhthann followed them because his wife Nar was of the Tuatha Dea, and it was she solicited him that he should adopt Brugh as a burial-place for himself and his descendants, and this was the cause that they did not bury at Cruachan.”—(p. 101.) These passages, coupled with many others scattered through our ancient MSS., and supported by a widely-spread tradition, are sufficient to authorise us in accepting a fact already accepted by such eminent authorities as the late Drs. Petrie and O'Donovan.

The *Annals of the Four Masters* gives us the following evidence as to the connection of this people with Brugh:—“The Age of the World, 3450. After the completion of the last year of the eighty years which Eochaidh Ollathar passed in the monarchy of Ireland, he died at Brugh, of the venom of the wound which Cethleunn inflicted on him in the first battle of Magh-Tuireadh.” It is to be noticed that the chronology of these annals is that of the Septuagint. According to the corrected chronology of Roderick O'Flaherty the above event took place in A.M. 2884. In a note under the word Brugh the translator

of the annals has the following remarks:—“Brugh, i.e. Brugh na Boinne, a place on the river Boyne near Stackallen Bridge in the County of Meath. In the account of the Tuatha-De-Danann preserved in the Book of Lecan, fol. 279, p. b., col. 2, it is stated, that Daghada Mor (i.e. the Great Good Fire, so called from his military ardour), for eighty years King of Ireland and that he had three sons, Aenghus, Aedh, and Cermad, who were buried with their father at Brugh-na-Boinne, where the mound called Sidh-an-Brogha was raised over them as a monument. . . . . The monuments ascribed by the ancient Irish writers to the Tuatha De Danann colony still remain, and are principally situated in Meath near the Boyne, as at Drogheda, Dowth, Knowth, and New Grange. There are other monuments of them at Cnoc-Aine and Cnock-Gréinné in the County of Limerick, and on the Pap Mountains, Da cic Danaime, in the S.E. of the County of Kerry.—See the year 861. These monuments are of the most remote antiquity, and prove that the Tuatha-De-Dananns were a real people though their history is so wrapped up in fable and obscurity.”

The above-quoted passages—sustained as they are by many others scattered through our ancient MS. literature, and by the almost universal traditions of the country—warrant us in concluding that the great sepulchral mounds on the Boinne, and which are so graphically described by Sir William Wilde in his *Boyne and Blackwater*, are in truth the works of that mythic race.

The bardic accounts of this people are curious; they are represented as being the descendants of the third son of Nemedius, who was driven out of Ireland by the Fir-Bolg invasion, and who, after a variety of wanderings and adventures, returned again and re-conquered their former home, under their chief Nuadhat of the Silver-hand, defeating the Fir-Bolgs in the battle of Moytura. According to O'Flaherty, in his *Ogygia*, these transactions took place A.M. 2737. Their dominion lasted for 197 years, when it fell under the victorious arms of the Scotie or Milesian colonists.

The Tuatha-De-Dananns are represented as a remarkable race, and of a much higher civilization than the colonists who preceded and followed them. They are stated to have been poets and musicians, skilled in medicine and surgery, wonderful craftsmen in gold, silver, and bronze, famous builders in stone and wood, and particularly addicted to magic and necromancy; and though they appear to have left no representatives in the population, they are more regarded in the traditions and folk-lore of the peasantry than either the Fir-Bolgs or the Milesians, while the topography of the country attests the fact of their presence, either as a warlike colony, or as a numerous, distinct, and privileged order in the state. Their characteristics are set forth in a poem by Eochaidh O'Flinn, a bard who died in A.D. 984, and which is to be found in the *Book of Ballymote*, fol. 18. The following translation, with a few verbal alterations, is by the late Dr. Connelan:—

## 1.

Eire of excellence and arms

Whose ancient plains were held by contending hosts,

Whose armies extended westward to the setting sun,

Whose heroes performed feats of valour at Tara.

## 2.

Thirty years after Geannan

A magic race took possession of the land,  
The Tuatha De Danann threatened destruction,

On the Firbolg with their venomous spells.

## 3.

Great was the number (which God permitted for the destruction of Nobles)

That landed to spread fear and dismay,  
In dense dark clouds they moved along

To the mountain of Conmaicne in Connaught.



4.

Though they came to learned Erin  
Without buoyant adventurous ships,  
No man in creation knew  
Whether they were of the earth or of the sky.

5.

If they were of diabolical demons,  
They came of that woeful expulsion (from heaven);  
If they were a race of tribes and nations,  
If they were human, they were of the race of Beothach.

6.

That social man from whom the fair race sprung,  
Afforded legal rights and protection to men;  
Beothach the active, the founder of the Feine,  
He was the son of Jarbanel the son of Neimhéd.

7.

This race offered not peace or friendship to any  
In Inisfail placed at the setting sun,  
They fought a fierce and desperate battle  
In the end, at Moy Tuireadh.

8.

The Tuatha De took by force  
The sovereignty from the tribe of Bolg,  
In the battle, with great lamentation  
A numberless host of them were slain.

9.

Among them were the sons of Elatan of arts and sciences,  
Alloth the brave and fearless,  
Breas the most learned in Fodla,  
Dagda and Dealbaath and Ogma.

10.

Eire from whom the pleasant land took its name,  
Banba, Fodla, and Fea;  
Neman, skilled in many arts,  
Danann, the mother of the Dec.

11.

Badhbh and Macha of great wealth,  
Queens, whose knowledge was great in magic spells,  
White clear and shapely were the hands  
Of those two daughters of Eammas.

12.

Goibhnen, the skilful refiner of precious metals,  
Creidne, the artificer who obtained his knowledge by sorcery,  
Diancecht, healer of the most virulent diseases,  
The heroic one Lughaidh, the son of Eithne.

13.

Creidinbel, whose heart was pure,  
Bechmilh and Danann, of symmetrical figure,  
Casmael, of severest satire,  
Coirpre, son of Ethna and Ethan.

14.

The grandsons of the Dagda who ruled Erin,  
Divided Banba of noble kings,  
They were princes of might in their days  
The three sons of Cearmna of Cualann.

15.

Erinn, wealth abounding,  
They divided into three parts,  
They ruled her with wondrous deeds  
Mac Cuil, Mac Ceacht, and Mac Greine.

16.

Since the flood it was decreed by the Son (of God)  
To extirpate this regal race;  
The result of their evil acts is  
That none of their seed remains in Erin.

17.

Eochaid O'Flinn, truthful in historic knowledge,  
Composed these verses by the strictest rules,  
Although I have treated of these deities in their order,  
Yet I have not adored them.

18.

I adore the name of the king, creator of the heavens,  
You learned men proclaim the truths I relate to you,  
It was he that made all the seasons,  
It was he created the land of Erin.

After the defeat and subjugation of this people by the warlike Scoti, they seem to disappear from the page of history; in the internecine strifes which so constantly are recorded, their name never once again appears. The Fir-Bolgs, who preceded them, remained in the country, principally in occupation of Connaught, and re-appear in our records, and succeed in placing a king of their race on the throne of Ireland; but of the Tuatha-De-Danann we hear no more, except in the kingdom of Faery. Here they still maintain a dominion over the imaginations of the Gaedhil; they have taken possession of the rath, the stone-circle, the holy-well, the mountain-tarn; they dwell beneath lakes, and in the bosoms of the everlasting hills; their palaces are the spacious caverns of the mountains, where they guard treasures of gold, silver, and gems. They sometimes appear among mortals, always in a human form, exhibiting human sympathies, and performing friendly offices towards mankind.

Dr. O'Donovan has remarked the curious fact, that none of our existing families trace their pedigrees from this people. In a note to A.M. 3471, he states:—"It looks very strange that our genealogists trace the pedigree of no family living for the last thousand years to any of the kings or chieftains of the Tuatha De Danann, while several families of Firbolgic descent are mentioned as in Hy Mainy, and other parts of Connaught."—(*Ann. Four Mast.*)

I have been thus particular in alluding to the *mythic race*, as I am of opinion that, at whatever period they flourished, they were the introducers of many useful arts into Ireland, and among them that of building in stone; the stone-lintelled passages and vaults of their sepulchral mounds are evidence of this. The poem which I have quoted records the names of the chief professors of the various arts and sciences which they introduced; among them appears that of "Goibhnen, the skilful refiner of precious metals." This is a form of Gobhan, and it is more than probable that over his wife was erected the tumulus the plundering of the cave of which by the Danes, in A.D. 862, I have already alluded to. It is equally probable that he may have been the original Gobhan Saor, and the root from which all subsequent legends of that personage sprung. A note by Dr. O'Donovan, at A.D. 861, confirms to a considerable extent my views on this subject. He writes:—"According to the pedigree of the Tuath de Danann, Gobhnian, Gobha, or the Smith (whose brothers were Creidne, the Brazier; Diancecht, the Physician; Luchtain, the Carpenter; and Cairbre, the Poet), was the son of Tura Mac Tuireill, of the royal line of the Tuatha-De-Danann."

Dr. Petrie has laboured to shew that this was a real personage who flourished in the commencement of the seventh century, but for this he gives no authority, resting his assumption upon the local traditions that the Round Towers of Kilmacduagh, Killala, and Antrim were erected by him; but we have not a scintilla of evidence as to when these structures were erected. Dr. Petrie's mode of argument is simply this: *It is my opinion* that the Round Towers of Kilmacduagh, Killala, and Antrim were erected in the seventh century; local tradition states that they were erected by the Gobhan Saor,

therefore that person lived in the seventh century. The argument breaks down in the first postulate, and local tradition maintains that sundry mediæval churches, abbeys, and castles were erected by the same personage, which could not be the case unless that he was somewhat like Fintann the son of Bochra. The myth is far older than the seventh century—most certainly as old as the erection of stone structures in Ireland, which I have shewn already to have been of a remote antiquity. I have hinted that Goibhnen, the Saor, or chief artificer of the Tuatha-De-Danann, may have been identical with that Gobhan over whose wife was erected a sepulchral mound at Brugh-na-Boinnue, and whose fame as a builder has reached down to our own times.

Many other personages of this name appear in our annals and hagiologies, connected with various religious houses; the following are given by Mr. Marcus Keane in his work, *Towers and Temples*, &c., p. 63:—

Brigoon, *alias* Bal-Gobban, Cork.  
Kinsale, Cork, St. Gobban, 5th century.  
Dar Inis, Wexford, St. Gobban.  
Killamery, Kilkenny, St. Gobban.  
Leighlin, Carlow, St. Gobban.

Dr. Lanigan mentions a St. Gobban, of the seventh century, who lived with twelve monks under St. Domangen, on an island called Inispuic, on the coast of Cork. This island has been hunted for by many writers, but they need not have taken so much trouble; it is evidently the large island in Cork Harbour now known as Spike Island, the English form of Inispuic; he was subsequently made a bishop. According to Dr. Lanigan, St. Gobban had an extensive monastery at Old Leighlin, County Carlow, which he resigned to the management of St. Lasarian, who, it is said, had under him, at one period, 1,500 monks. St. Gobban went and erected a monastery in some other locality (v. ii., p. 402). The same authority informs us that a monk named Gobban was associated with St. Fursey in his mission to the Saxons (*ibid.*, p. 459). From the above it is evident that the name became one in general use—in fact Mac Firbis, in his *Book of Genealogies*, mentions a family or clan in Ormond named the Mac-an-Ghobhan.

#### SWIMMING-BATHS FOR THE PEOPLE.

THE agitation for the conversion of the old basins of this city into swimming-baths for our citizens, is recent enough to be remembered, and we hope it will be renewed, as the object commends itself to every enlightened member of society. We have already spoken quite plainly upon the question, and probably before long we will have something further to say upon this important subject. The Corporation of this city has not done its duty in the matter, and it is seldom indeed of late years they have performed it.

In London "The Floating Swimming-Baths Company" is announced, with a capital of £50,000, of which £12,500 is said to be already allotted. The object, as may be seen from the title, is to secure to the public greater facilities for the necessary and healthful recreation of bathing and swimming. The directors of this company have undertaken the establishment of floating swimming-baths on the Thames, which will comprise the advantages of convenience of place, safety from accident, with a continual change of filtered water, regulated in temperature according to the season. The sanction of the Thames Conservancy and the Metropolitan Board of Works has been obtained for a site on the river, close to the Charing-cross Station; and the sanction of the Thames Conservancy and of the Office of Works has been obtained for another site on the Thames, off the Embankment, near the Pimlico Pier. Season tickets will be granted to shareholders at reduced rates, and shareholders will have the special advantage of the sole use of certain portions, which will be set aside for them



during certain hours of the day. Experienced professors of swimming will be engaged; and it is intended to institute periodical swimming matches, with prizes, in order to encourage the practice of swimming as a national accomplishment. The directors point out that the swimming-baths in the metropolis are profitable speculations. And if existing baths are found to pay, it is only reasonable to suppose that greater financial success will be realised from floating swimming-baths, which will not have to pay that important item of expense—water rate, and which will possess a more frequent change of water.

## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

*Edited by Mark Philip O'Flanagan, T.C.D.*

### MAHOGANY-STREET.

This once and still respectable street has undergone a variety of changes since the early days of the Irish Parliament—indeed the changes have been so many, that it would need a well-kept diary to furnish them. Many of the old houses still remain, but a private street it had ceased to be in our grandfather's time. Hall doors and area railings have given way to shop fronts with wooden and screeching revolving shutters, and in places half-a-dozen old red-brick fronts have been thrown into one monster establishment. Building and repairing, re-building and re-patching, and plastering, painting, and decorating, have been going on unceasingly in this street for the past forty years; and the exile who might now return from his forced visit to Botany Bay, whither he was sent for his country's good in the "good old times," would hardly recognise Mahogany-street. True, he might find round tables and balloon-back chairs, and makers and vendors of them, still in the old quarter, but he would with difficulty hunt up an old resident who could tell him what had become of the old firms, and from whence were transplanted the owners of the new. Our own memories, too, are fading in respect to this street, though many a schoolboy hour we idled on its flags between Scandinavia-street and the Mall. That Mahogany-street may not be left out in the cold, we have asked the "Oldest Inhabitant" to spare an hour or two to accompany us in our visit, that an instalment may be given of what may be completed hereafter.

"The history of this street, sir, is well worth being written, but I have been unable during the Christmas holidays, through suffering from a cold, to jog my memory in respect to its associations. In my early days Mahogany-street, although it had several shops, still a few well-built private mansions of the gentry existed. These were gradually converted into offices and apothecaries' shops; chemists gave way to druggists, and druggists to drapers, and drapers to the migrating clothiers from Polly's-lane. The representatives of the mahogany interest through many a severe vicissitude held their ground, and kept their heads above water, though attacked in front and rear. A rare old race of worthies were the mahogany men—a jovial, though a deep-designing and dove-tailed race. They were a class of men who loved secret ways, though open enough in their utterance. They could inlay and veneer well, and do a piece of expert dovetailing that would puzzle the Wizard of the North or any other magician to find how it was put together, or to discover the joint.

"Nearly ninety years ago Mahogany-street had a few famous cabinetmakers, merchants, and traders, some of whose firms were represented in name down till a few years ago. Foreign names were conspicuous in this street, and a few of them were, I believe, French Huguenots, or rather descendants of those who settled in this city owing to the Revocation of the Edict of Nantes. Among these old merchants and traders of Mahogany-street there are a few of the last century whose names are worth recalling: Francis

Kirchoffer, cabinetmaker, No. 62 (Francis had a brother or relative in the same trade in North Earl-street); J. T. Jonillé, perfumer, No. 10; William Hearn, cabinetmaker, No. 47; Christopher Dougherty, do., No. 42; Robert Morgan, do., No. 16. An eminent bookseller of the old school, Samuel Price, lived for many years in this street; he retired from business, and died in quiet at Ball's Bridge in 1793. Richard Twigg, a herald painter, lived at No. 11; and the name of Robert Hanna, grocer, at No. 12, was well known for upwards of a half-century—indeed the grocery and wine-merchant business of Robert Hanna dates back to the early years of the Irish Parliament.

"Coachmakers, house painters, and floor-cloth manufacturers were common to this street since the eighteenth century, from the days of Patrick Jones before the Union till the days of Boswell and Rounds of our own day. Like Polly-street and Great Lying-Inn-street, Mahogany-street had its coachmakers too; and John Costello, of the family in the same trade in Lying-Inn-street, carried on business for many years here. This street had also in the last and early in the present century its French musicians, artists, instrument-makers, and print-sellers. Esau Clarke, French horn maker, lived at No. 23; and Le Petit, in the present century, print-seller, formerly of Capel-street, for several years carried on business at No. 15. After the death of Joseph Le Petit, stationer, the stationery and print-selling business was carried on by Maria Le Petit, his wife. Le Petit's shop was a most respectable one, and received during a portion of its time a good amount of patronage. The shop and windows were in the old style, and it stood askew to the street; it is now a portion of Fawcett's wine stores. Philip Fitzpatrick, an eminent wholesale merchant, lived at 14, and, having made his fortune, retired, leaving none of his family as successors, as far as I know at present.

"Before the close of the last century, Hunt and Kiernan, state apothecaries, lived at 57, and early in the present century George Kiernan carried on the same business at 58, while James Hunt continued as state apothecary, but at 49 on the Mall. Subsequently Daniel Pakenham, state apothecary, occupied 57 in this street.

"Between fifty and sixty years ago Joshua Kearney, a carver and gilder of the old school, carried on his trade at 49, and continued there for a number of years, and was remembered well by the last generation. L. and R. Morgan, and other members of the family, carried on the cabinetmaking business for a number of years at 21. There were others of the name carvers and gilders, brokers, cabinetmakers, and upholsterers, but one of the most eccentric of the name who lived in this street was David Kearney, who continued to carry on the cabinetmaking and upholstery business at No. 13. You must have remembered him, Mr. O'Flanagan. David was a short, square-built man, as broad nearly as he was long. If I remember aright, he was either in-kneed or out-kneed; his legs were rather short, but the length of his back compensated for the shortness of his limbs. David, though short, could take a long step; and his arms were very long—so long, I think, that he could button or unbutton the slits in his knee-breeches without stooping. David did a respectable trade in the cabinet and upholstery line, and obtained good prices for his work. He was a man who kept up to the old style and customs, and the men he employed, if he liked them, he would not part with them while he had work. Among his hands was an upholsterer named Gilchrist, whom he employed for a number of years at intervals. David was very fond of Gilchrist, because he was a first-rate workman, and a genius to boot. Gilchrist had an inventive taste, and spent a number of years in inventing and perfecting fire-arms; but want of capital and bad health crushed the spirit of the poor inventor. It was stated that he entrusted his secrets and his models to either the old firm of Rigby or Trulock—I forget

which,—and that he never during the remainder of his life succeeded in getting any reward or satisfaction. Gilchrist's guns and smaller arms were, I believe, on the revolving principle, afterwards worked with so much success by the American Colt. Shortly before poor Gilchrist's death he originated a controversy on 'Animalcules in the Blood,' by a letter he published in the *Dublin Argus*, a trades' journal published in this city in the years 1845-6. The controversy continued for several weeks, and brought out a number of disputants, medical men and authors of note joining in the discussion.

"At the corner of Coke-lane in this street, upwards of forty years ago, the once famous 'Trades Political Union' was, I believe, first established, and used to hold its committee meetings. This organization was utilized by O'Connell for some time.

"At No. 11 in this street the third or Rotundo Divisional Police Court was held for a great many years, until the enlargement of the premises of Cannock, White, and Co. (now Arnott and Co.) absorbed it and other houses contiguous. Frank Thorpe Porter was the sitting magistrate in the Mahogany-street office for a number of years. Frank, after his retirement from the magisterial bench, published a number of racy sketches in some of our city periodicals, which proved him to be an acute observer of doings in high and low life. His long experience of police courts, of summonses and cross-summonses, and examinations, afforded him good opportunities, which he turned to advantage in some of his sketches. The renowned Zozimus, the blind ballad-singer and reciter—one of our city characters of the present century,—was often brought up before his worship, or other worships in this street, for speaking and singing too plainly of our 'sovereign lady the Queen' and her ministers and agents in this city. Zozimus was wont to hold forth in the language of Curran and Magna Charta when brought up before their worships, and he generally got off with a caution or a small fine.

"The Mahogany-street police court witnessed many strange scenes in the early days of the Repeal agitation, and many a contumacious jarvey and voluble-tongued virago who had no objection at all to whiskey used to cry 'Bad luck to Porter!' I dare say, sir, this literary magistrate, like Captain Cuttle, kept a pocket-book, and took a note of the ways and means of habitual offenders and others, who could hardly cease to do evil while not attempting to do any good.

"A dispensary for the parishes of SS. Polly and Tommy—the first of its kind established in this city—was held for a number of years in Coke-lane. Medicines and advice were here given gratis thrice a-week, either at the dispensary or at the dwellings of the resident parishioners who were unable to attend, or whose complaints or situations rendered them improper objects for public hospitals. Some noted city physicians were connected with this dispensary for a number of years after its first establishment.

"Adjoining the General Postal Service Institution stands the large brick-built city mansion once occupied by W. Henry, Esq., a relative of the Duke of Leinster, but subsequently purchased and occupied as the bank of Benjamin Ball, Mathew James Plunket, Philip Doyne, jun., and Henry Samuel Close, Esqrs. The outside of the house never exhibited any ornament, but throughout the whole of the present century the railings in front were a great public obstruction. Recent concessions on the part of the directors will, it is expected, shortly lead to an improvement in the public interest.

"Of the monster drapery establishments of this street I do not care to say much; they have been productive of evil and good, and they are too modern yet to afford any historical matter worthy of particular notice.

"Mahogany-street, from 1782 till 1800, could boast of a few noted members of the Irish Parliament: Sir John Browne, Bart.; Sir Joseph Hoare, Bart., who was also a member of the Bar. It was of him, I believe,





MEMORIAL WINDOW THEODDINGWORTH CHURCH.







sir, that John Philpot Curran said, 'Whenever I see a smile upon Hoare's face it puts me in mind of tin plates on an oaken coffin,' or something to that effect. The other Irish M.P.s were: Sir Hugh Hill, Bart.; John Moore, and Henry Alcock.

"A few medical men of note lived here before and subsequent to the Union: Dr. William Harvey, physician to Steevens' Hospital, and treasurer for some years to the College of Physicians; also Arthur Saunders and John Michael Daly. Edward Whitley, oculist, lived at 22; and the Rev. Robert Law, D.D., rector of St. Polly's parish, lived at 7. Among the medical men who lived in this street early in the present century were: James Daly, at 37; James Browne, at 23; and John Eaton, apothecary, at 16.

"The cabinetmakers mustered strong in this street after the Union down till late years, and some of the old firms of the last century were continued in the hands of members of the same family or representatives. The Morgans, Roycroft's, Dougherty's, Kearney's, and others continued in the old houses. Lewis and Robert Thomas, coach builders (an old firm), first lived at 7, early in this century; then at 8, about the year 1830. Subsequently, by a change of numbers in the street and alterations, I believe the premises was known as 10 and 11. Philip McCarthy lived at 5; Robert Bailie, carver and gilder and looking-glass manufacturer (an old firm), at 15; Richard Ball, at 4; Joshua Kearney (whom I already mentioned) was long in the trade, and was a member of the old Corporation, being a representative of the Guild of Carpenters. John Preston and Son, cabinetmakers, lived at 8. Nat Preston was also a member of the Common Council, and a representative of the Guild of Joiners. Michael Sandford, a drawing master, resided at 45; and William Carroll, an engraver, at 47. The houses in this street were not always wholly occupied by the one family; teachers, artists, professors, agents, and others held offices in the upper apartments of some of the houses.

"Mahogany-street, sir, had always a number of haberdashers or drapers; it might with truth be called Hosier or Haberdasher-street at one time. Samuel Thompson, a noted cutler of long standing, lived at 6, afterwards Thompson and O'Neill, No. 7; and James Shea, cutler (another old firm), at 39, now 37. Two of the barristers who resided in this street between fifty and sixty years since were Robert Morgan, at 21, and J. H. Henley, at 9. The former resided for some years afterwards at 19 Synnot-place, and the latter at 27 Somer's-hill. Many barristers migrated to Somer's-hill from other streets, and continued there down to a late date. The paper-staining and painting and decorating trade continued strong in this street for a number of years in the present century.

"Coming down to thirty years ago, or a little more, the places of some of the old firms of cabinetmakers were occupied by an invasion from Bride's-alley and other quarters south of the Liffey, and some of these brokers turned auctioneers, house agents, valuers, and undertakers. F. S. Brocas, professor of drawing, of the well-known family of that name, lived for some time at 15; and William Allen, chemist and druggist, at 50 (now 48) in the street, is an establishment of many years' standing.

"For the sake of historical accuracy, I may remind you, sir, that the numbers in this street have been changed some years ago, by pushing them back on one side a couple of figures, and pushing them forward on the other or "Monster House" side. Some houses have been split into two numbers, although only one house in reality. Arnott and Co.'s establishment has absorbed five or six of the old houses, and other firms from two to three. I have, in my recollections, mentioned the old firms in connection with the old numbers by which I knew them many years ago.

"Of the firms who represented the cabinet-making and paper-staining trades of late years, little need be said, as they are well

known to the present generation. The firm of Strahan, 24 and 25, cabinetmakers, is perhaps the most prominent.

"I think, sir, I have now pretty well run over all, or nearly all, the houses of note and long standing that have existed in Mahogany-street towards the close of the last and for several years in the present century. Mahogany-street will yet see more changes, and I fear they will not be for the better."

Turning our face towards the Mall and the Admiral's Pillar, we walked onward for a few yards, and parted for the evening, with a friendly "good-bye," with the "Oldest Inhabitant."

#### CIVIC LYRICS.—No. LV.

##### ECHOES FROM THE STREETS.

(With variations.)

Who robbed us of a clean bill of health,  
And squandered away our public wealth?  
Who made our sewerage scheme collapse,  
And set in our streets some vile man-traps?  
Who let our city run short of gas,  
And pocketed fees to "sell the pass"?  
Echo answers the query—Who?  
Don't vote for them, whatever you do!

Who hid our churches from public sight,  
By tumble-down houses on left and right?  
Who let our railway companies still  
Disfigure, pull down, and maim and kill?  
Who keep a dismal swamp on the Strand,  
Where the people's park may one day stand?  
Echo answers the query—Who?  
Don't vote for them, whatever you do!

Whose indolence paves the way for plague,  
And numerous other ills in league?  
Who say they can move, by "pitch-and-toss,"  
Old Nelson's Pillar to Harold's Cross?  
Who voted for bills, more powers to give,  
To filch the grounds where the poor might live?  
Echo answers the query—Who?  
Don't vote for them, whatever you do!

Who want a loan on a pledge of rates  
Already burdened with millstone weights?  
Who wish to fill more office stools,  
To prove our citizens still are fools?  
Who are the high-minded local host,  
Though kicked in the ribs, stick to their post?  
Echo answers the query—Who?  
Don't vote for them, whatever you do!

Who are the members that know your wants,  
And gain their own, despite of all taunts?  
Who never hunger for place or pay,  
Yet take whatever comes in their way?  
On public grounds they are quite at home,  
But on public health do always roam.  
As epidemics are straight in view,  
Well "serve them out," whatever you do!

CIVIS.

#### AN EXAMPLE WORTHY OF IMITATION.

THE Lord Mayor of Dublin (Maurice Brooks), at a meeting of the Corporation, and in reply to the congratulations of some members on his being elected as one of the M.P.s of this city, gave utterance to the following honest and sensible remarks, which we hope will have the desired effect:—

"When they elected him to fill the civic chair, he had stated that no one should know, during his year of office, what his politics were. Probably there were gentlemen present who were not Home Rulers, and who were not in favour of denominational education, and he would not say anything to offend them. He had just emerged from a political conflict, and he trusted he had left all politics behind him, for the Corporation Hall was not the place for political discussion. He would, therefore, content himself with offering his thanks for the support and kindness he had received, and expressing a hope that as long as he had the honour of filling the civic chair, his politics would be kept in the back ground. The position he occupied was not due to any merits of his own, and he trusted the citizens would find that their confidence had not been misplaced."

It is a pleasure to us to record in our pages the above remarks, knowing, as others must also know, that for years we have protested against political and religious questions being dragged into the proceedings of the Corporation. If our worthy Lord Mayor rigidly adheres to the resolve of keeping not only

his own politics in the back ground during his year of office, as well as calling to order others who unnecessarily introduce both religious and political questions in the municipal council, a great improvement will take place, and far more respect will attach to the conduct of affairs in that body, which has done much to bring disgrace on municipal government in Ireland.

#### TECHNICAL EDUCATION—PRIZES FOR JOINERS, &c.

THE Joiners, Carvers, and Ceilers Company of London have determined to offer for competition, amongst the students of the various schools of art within the metropolitan area, the following prizes, viz.:—For building construction, one of five guineas and a second of three guineas; for wood carving, one of five guineas; for designs for same, one of three guineas; for ceilings, &c., one of three guineas. Particulars as to the conditions may be obtained of the company, and the company do not bind themselves to give a prize unless there should be at least six competitors from the whole of the schools, in each branch of design or art. The carvings and also the drawings (without strainers or frames), are to be sent to the Guildhall, addressed to the clerk of the company, not later than the 14th of July. The judges will be appointed by the company.

We think that it would lead to better results if the competition was open to all students of art, or workmen of the trade attending the schools of art in connection with South Kensington, both in London, Dublin, Glasgow, and perhaps a few other cities. The number of prizes might also be increased. As the prizes emanate from a London City guild, perhaps the members thereof think they would not be justified in going outside their own city. On the other hand, it must be remembered that several of the London companies hold large estates in the northern part of this country.

#### NOTES OF WORKS.

THE following are amongst the works completed or in progress from designs and under the supervision of Mr. E. H. Carson, architect:—

New epidemic wards at the Meath Hospital, just completed. Cost, about £800. Messrs. Hall and Sons, Harcourt-street, contractors.

The conversion of the Greenmount Brewery into a distillery is very nearly completed. Cost is not expected to exceed £10,000.

Alterations and additions to Bloomfield, Sandymount, County Dublin, for J. Parsons, Esq., have just been completed. Cost, about £500. Mr. Medcalf, Harrington-street, was the builder.

Extensive alterations, &c., to the Collector-General of Taxes offices, Fleet-street, are in progress. Mr. Moyers, Richmond-street, builder.

Extensive farm offices and other works are in progress of erection at Ballinahinch, Tulla, County Clare, for Captain C. G. O'Callaghan, D.L. Cost will be about £1,500. Mr. Sexton, Ennis, is the contractor.

Sir John Bradstreet, Bart., is having five new houses, with suitable offices attached, erected on his estate, Grenore, Mountbellew, County Galway, for his tenants. Mr. Harris, Ballinasloe, is the contractor.

Extensive alterations and additions have just been completed to the mansion-house of Sir James Higginson, K.C.B., 7 Rutland-square. Mr. Medcalf, Harrington-street, was the contractor.

Considerable alterations and additions are now in progress for converting the flax mills situated at Chapelizod, County Dublin, formerly belonging to Messrs. W. Dargan and Co., into a distillery. A detailed account of this extensive undertaking will be given in a future number of the IRISH BUILDER.



## THE BUILDING STONES OF IRELAND.\*

(Concluded from page 35.)

### CHAPTER VI.

*Trap Rock—Basalt: General Remarks upon—The Giants' Causeway—Columnar Form: Description of—Sculptures—Greenstone—Chalk: Variation of into Marble—Flint—Gypsum—Boulders—Conclusion.*

VOLCANIC rocks are designated by the name Trap or Trappeau, and are found in the form of veins protruded through or overlying other rocks in tabular, columnar, or horizontal masses. The term trap is derived, according to Lyell, from the Swedish word "trappa," signifying stair, because rocks of this class frequently occur in terrace-like masses, rising tier over tier above each other, as gigantic steps of a staircase. A remarkable example of this kind of formation exists on the road about midway between Galway and Oughterard.

Viewing these rocks generally, they would appear to be of comparatively recent formation; we may, therefore, infer that, in the earlier periods of the condition of the earth, circumstances were not favourable to their development, or at least to their propulsion to its surface.

Basalt, which is the most widely-distributed stone of this class, is now acknowledged to have been produced as lava either from submarine volcanoes (in which case, cooling under the pressure of water, it became crystallised in columnar form, and was afterwards gradually raised), or it was poured forth at a higher level in tabular masses, covering the surfaces of other rocks. This formation is of very extensive occurrence all over the globe; the greatest known mass is that noticed by Colonel Sykes, and published in the Proceedings of the Geological Society (London, 1833), as existing in the Deccan (India), covering many thousand square miles of surface.

On the Continent of Europe, in Italy, central France, and upon the banks of the Rhine, also in Iceland and in the Hebrides (at Staffa), we find imposing examples of columnar basalt; but in no region of the globe is the majestic grandeur of the formation of the north-east coast of Antrim equalled, where, according to the accurate measurement made by the Ordnance Trigonometrical Survey, many of the columns reach as high as 317 ft., and the sides of these enormous prisms occasionally measure from 5 ft. to 6 ft.

The stones of the Giants' Causeway—jointed concave and convex one into the other, and fitting with the utmost accuracy in their polygonal sides, within the interstices of which the blade of the smallest penknife cannot enter—are justly considered a phenomenon of nature; but visitors to this district seldom take the trouble of viewing the miles upon miles of coast-line only seen from the sea stretching towards Belfast, where the columnar formation shews itself in heights, including the chalk beds upon which they rest, and their superincumbent capping rising from 500 to 600 ft. in perfectly perpendicular lines, forming the most magnificent coast line in the world.

This stone principally occurs in Antrim and Derry, both columnar and massive; it is also found in considerable quantity in Limerick, and it is seen in some of the hills massive, in Kildare, as well as in other inland districts.

Basalt is a close, compact rock of dark green colour, nearly approaching to black; it is of variable composition and consists principally of silica, oxide of iron, alumina, and lime. Silica and oxide of iron exist generally in the same proportions in it; but alumina and lime—both of which largely modify its texture, the former varying from 1 to 6, the latter from 1 to 9 in its quantity—alter its structure to a very considerable extent.

Lyell informs us that "many of the figures of Egyptian temples are formed of basalt";

therefore the stone from which they were sculptured must have contained alumina and lime in vastly greater proportion than occurs with us.

Greenstone, popularly called whinstone, occurs in all the clay-slate rocks and frequently in sandstone; it is of volcanic formation, protruded through other rocks of sedimentary deposit, of hard, compact nature, of exceedingly close texture, and as an ordinary building stone it is useful; but is not obtainable in sufficient quantity in Ireland to demand especial notice here. Wherever it occurs it is used as rubble stone, and occasionally in the form of ashlar; but the difficulty of working it, except as hammered stone, precludes its use for the latter purpose to any extent. There is a bridge in the County Wexford entirely built of it. It is found in the east of the County Limerick, also in Down, Antrim, Derry, and Donegal, and, like all volcanic rocks, it alters the character of other formations where it comes in contact with them. It obliterates the stratified appearance of the sedimentary strata, and causes them to become crystalline. Blue limestone is occasionally converted by it into a close-grained white marble.

Chalk exists in considerable quantity in the counties of Antrim and Derry; the basis of the entire north-east coast of the former county is composed of it, and it stretches to a considerable distance southwards. It is upon chalk rock, which presents a characteristic feature in the abrupt prominences of the sea-board line stretching from Strangford Lough and beyond the romantically-elevated Castle of Dunluce, that the columnar basalt rests. In many of the mountain districts of Derry, chalk crops out on the acclivities, capped by massive basalt. Along the Portrush coast, it is well developed, and many interesting examples are seen in the white rocks of Dunluce. Being more useful in an agricultural point of view than in connection with building, this formation does not require particular attention, except where veins of trap have been forced through it, when it is converted into limestone generally of crystallised texture and considerable hardness, and this to a large extent on both sides of the invading vein.

Dr. Berger (Geo. Trans., 1st series, vol. iii., page 172) thus writes in allusion to these veins:—"The extreme effect presents a dark brown crystalline limestone, the crystal running in flakes as large as those of coarse primitive limestone. The next state is saccharine, then fine-grained and arenaceous, a compact variety having a porcellaneous aspect, and a bluish grey colour succeeds. This towards the outer edge becomes yellowish white, and insensibly graduates into unaltered chalk."

Flints occur in numerous instances throughout depositions of chalk, and when examined by high microscopic power, they are invariably found to include traces of animal life—some of the zoophytes, perhaps a sponge in which silica has been deposited and accumulated.

Chalk, though highly absorbent of water, possesses the property of not permitting fluids to permeate through it; and it is in consequence largely used for the purpose of lining ponds and reservoirs. If a little salt be added, to prevent worms boring through, it forms the most effectual possible puddling for canals, water-works, &c. Of course these remarks are only applicable to districts where chalk can readily be obtained, as the cost of carriage would act as prohibitory to its use at considerable distances.

Gypsum, or sulphate of lime, is lime combined with sulphuric acid, the origin of which is sometimes disputed, however: it is now acknowledged as with regard to the white marls of Montmartre—the largest known accumulation—(the Paris basin) that gypsum is a fresh-water deposit, but largely intermixed with calcareous marine matter occurring, as we occasionally find it, in the course of a river being cut off in its connexion with the sea, either by an elevation of the coast-line, as at Baïe, Naples, or in a more

familiar way by the constant action of the tide elevating a beach.

A few miles from Dublin there is a small mountain river which delivers itself on the shore close to the Ballybrack station (Dublin, Wicklow, and Wexford Railway), which has no apparent outlet, the tide continuously washing up sand in its course, and the river water (except in the case of floods, when it forces itself through the obstruction) has no escape except percolating through the constantly-recurring barrier of sand raised against it. During the prevalence of high tides the estuary of this river becomes a salt-water basin; and if its course lay through a lime-stone district, gypsum would form in considerable quantity therein.

Rounded water-worn masses of stone—many of diameters of 20 ft., principally of granite, but including every known formation—are found all over the country, often in such elevated positions that it is matter of surprise how they have been transported thither; because, being generally of different stone from that which occurs in the locality—(although this remark does not always follow) sometimes in an exclusively limestone district we meet granite, conglomerate, sandstone, and trap rocks, lying with a few yards of each other, all rounded by attrition with other rocks.

It is now acknowledged it is from the floating power of ice we have derived these immigrants to our shores—some of them from the loftiest Alpine regions, many from the coasts of Greenland and Labrador; yet several are native, but invariably of granite, and most generally found embedded in clay deposits, some of them projecting partially above ground, others covered but by a few inches of soil, while numbers are excavated at considerable depths—these are derived from the Donegal and Mourne mountains, and the Killiney and Dalkey hills.

In northern latitudes enormous icebergs are constantly found floating, many of them rising some 200 ft. to 300 ft. above the sea level, and having much greater depth under water, in which are imbedded huge rocks, clay, and gravel; and, as they float into warmer latitudes, the ice melts, and deposits this foreign matter (which may have travelled thousand of miles) at the bottom of the ocean. In after ages this ocean bed is gradually upraised, covered by numerous masses of rock. To the student in geology, Galway County offers the most interesting examples of immigrant boulders.

In concluding these chapters, our only remarks shall be—we have avoided, as being unnecessary for their intended purpose, entering upon the numerous subdivisions of stone so minutely described by geologists. All formations—either granitic, stratified, or volcanic—where, as they necessarily must be in contact with each other, produce numerous hybrid variations, completely altering their relative textures, each partaking of the qualities of the other, the igneous rock becoming partly stratified, and the stratified losing the primary traces of its origin. These natural changes have contributed largely to subdivision, while many of the different groups derive their names from the localities in which they most abundantly crop out on the surface of the globe; others, from the organic remains, either animal or vegetable, found imbedded in them; but by far the largest are classified from the age of their deposits, to which a puzzling Greek nomenclature is applied. Our purpose has been to explain in the simplest possible manner the different descriptions of stone suitable for building works as occurring in Ireland, therefore we have confined ourselves to the principal denominations of each, avoiding altogether entering into minutiae, which, in a utilitarian point of view, could have no connection with our subject. Our idea has been the promotion of a taste for geological information, but which many erroneously suppose is inconsistent with Divine teaching. When it is remembered that the revelations of Scripture are more generally employed in a figurative sense, the book of Genesis will



be found only to explain the truths unfolded by Geology, and make apparent the dispensations by which the Almighty Architect of the Universe, in the exercise of His Divine power, has rendered this earth subservient to all the wants of man; and as each phase of geological discovery presents itself to our view in page after page of its history, each in their turn tend the more fully in compelling us to acknowledge there is no departure in them from the words which have emanated from the Great Creator of all.

### TINTINGS OF THE TIMES.

It has been said that the kicks bestowed by the generous British public upon Messrs. Gladstone and the members of the defunct Government by far outnumber the halfpence, yet the Lord Rector was thought to be just a "leetle" bit of a fanatic when, at Glasgow, he accused the Government of "plundering and blundering." What has come to light during the last few weeks respecting the telegraphs, has unfortunately proved that the latter portion of the impeachment was not entirely without foundation. "An error of enormous magnitude," says the *Western News*, "has been discovered in the Government telegraph accounts. In place of purchasing, as was supposed, a freehold and absolute title, the Government finds to its bitter cost that it purchased the leasehold only. The telegraphs were leased from the railway companies, and what they sold was merely a lease."

The Lancashire and Yorkshire Railway have been the first to present their "little bill," which amounts to the comfortable proportions of £950,000. When the London and North-Western, Great Western, and North-Eastern Railways come forward, I fear the "organ" will present more the appearance of a cobbler's than of a ministerial budget.

As language is occasionally used to conceal the thoughts, so figures in the hands of our late extremely liberal legislators served to hide what they in reality should shew. "Errors and omissions excepted" should be legibly inscribed at the foot of all Government accounts of the telegraph class; and, if the railway companies' claims come before a future parliament, every member present during the debate (should one take place) ought to insist on being furnished with an estimate of how many omissions there may be in what is actually shewn. This comedy of errors would be "comic" enough if we had not to bear the cost of it, and in some degree provocative of a giggle, only one feels that one is laughing at the wrong side of one's mouth. The above is one of the many instances of book-keeping by double-shuffle entry practised by the late Government.

I was somewhat amused to see in the number of the *IRISH BUILDER* for the 15th ult. the intimation that a certain Mr. Flood was fined £12 and £6 costs for flooding his milk with the moderate quantity of 100 per cent. of water. Mr. Flood, inasmuch as the milk was *nil* and the remainder water, should have defended himself on the plan of the hopeful youth who, when accused of possessing bad morals, denied the impeachment *in toto*, because he possessed no morals whatsoever. Perhaps Mr. Flood will now so far condescend as to cut the whited sepulchre line.

"Mud, mud, hawible mud—mud makes a fellow's twosvers confoundedly dirty." So runs the latest parody on the "Spring Chorus" of *Babil and Bijou*, as applied to the thoroughfares of "dear, dirty Dublin," in the form of a "Winter Lamentation." In the portion of the city where I reside—one of those localities which abound in that class of suburban villas the erection of which takes some thirty days; one of those localities where a brick on edge does duty as a party wall: but stay—I speak of home; I can scarcely term it *sweet* home, but then it is my parish, and as for appearance' sake I must

not disparish-it, I shall drop down in a more southerly direction to find fault.

The other evening I had occasion to cross Sackville-street (the street which has been victimised by patriotic sycophants) at the spot where the monumental gas-lamp of O'Connell stands. From the greasy nature of that crossing—which, by the way, reminds one of the "butter slides" of a Grimaldi,—I took some ten minutes to reach the aforesaid work of art, and, being unwilling to undergo another such ten minutes' exertion, I stood in a state of unequalled mental "botheration." With the hope of producing some brilliant idea which would extricate me from my dilemma, I applied five of my digits to my peruke, and, after curry-combing my scalp for some time, I was rewarded by the following, I must admit, somewhat novel notion. The notion was to turn my back towards my destination, and walk in the direction from which I had come. The ruse succeeded beyond my most sanguine expectation, as for each step I took forward I went three in a backward direction, and in the course of time arrived safely at the other side of the street, carrying a sort of landed estate in miniature upon my boots and nether garments.

A scavenger was seen in Britain-street the other day. A large crowd, of course, collected to view the unusual sight. They were not, however, allowed to enjoy the luxury long, as an agent of the British Museum who happened to be in the neighbourhood immediately secured the treasure. He is at present on view at South Kensington; admission one shilling.

OLYMPUS.

### THE ARRANGEMENT OF HOUSES.

BELFAST ARCHITECTURAL ASSOCIATION.

(Concluded from page 46.)

5. In clothing we bear, so to speak, a portable climate along with us; but no amount of coverings, in these regions at least, suffices without a fire. Fireplaces, however, as commonly constructed, are not sufficient. The hole in the wall does not adequately heat our houses, and the waste of fuel is extreme. A broad tile laid properly over the fire, I find, goes far to arrest the radiation upwards, radiating the heat, in fact, back; but, otherwise, the "hole" sends most of the heat up the chimney instead of into the room. Commonly the fire is burning and blazing to excess, or else it is half lighted, at once comfortless and miserable. Reflecting on the matter, I have myself devised a fireplace partly founded on one introduced two hundred years ago by Cardinal Polignac, described by Bernan and Edwards, and recently re-introduced by Captain Galton, with, however, important additions and modifications of my own. I laid the matter, several years ago, before Mr. Grisell, builder of the House of Commons, in the House of Commons itself, and some others as well. My fireplace economises fuel, warms the room, and promotes ventilation as well. Imagine an ordinary or, preferably, a stove grate then, advancing well into the apartment coated or covered with majolica, porcelain, marble, or some less costly material, immediately over the commoner tiles which are next the fire. The bars are straight and low, while the back of the fireplace is of iron, but say copper as a much better conducting material. Behind the fire, and extending some way up the smoke duct, is a hot chamber, which admits air by drains of sufficiently ample section from outside the house, which air, when heated, is discharged by valvular openings of equal section into the apartment. A door glazed with glass or talc, single or double, sliding on wheels or hinged, subsists before the fire. One of the fireplace jambs is made hollow up to the ceiling, and so arranged that the opening above shall be covered by the ornamental cornice, while the aperture in the hearth or fireplace below is managed in such wise as to supply, when the door or doors are closed, the fire with the deteriorated atmosphere of the chamber. When the fire-door, indeed, is closed, the heated air from the hot chamber behind the fire enters the room *pari passu* with the consumption of the fouled air derived from the ceiling of the room. In an ordinary open grate forty cubic feet or so of air passes, it is calculated, each minute into the chimney, but in the fireplace which I have described, twice or thrice the quantity if desired and permitted, may, I calculate, be transmitted. The heated air, in other respects, may be suffered to escape at pleasure, either directly from the hot air chamber or from tubes running along the base of

the apartment. A fireplace of this description would meet, I submit, every artistic and economic requirement. It would at once secure ventilation, supply warmth, and show a cheerful fire, with results which no other grate ever yet has sufficed to realise.

6. Convenience assuredly ought to be studied in our mansions. No stair-step, for example, should have a rise of more than 5 in., while houses, as on the French or Scottish plan, might be constructed so as to yield ample accommodation on a single floor. No dwelling, either, should be erected (municipalities should see to it) that did not meet at least the elementary requirements of human health and dignity. In the very humblest dwelling there ought to be a decent kitchen, which might also be a living room, with offices, a minimum of three bed-rooms one for the parents, the others for the youths and maidens of the family, with every adequate provision for heating, lighting, and ventilating. The ground-floor rafters must not be placed over the naked earth, but effectively severed from it, so that neither emanations from the soil, nor damp, nor the incursion of vermin should be so much as possible. The walls ought to be made quite impervious to moisture, and otherwise built so substantially as not to shake with the wind or tremble with the casual tread. A model should be erected, and builders and contractors constrained to come up to it. At the same time, all extant buildings, unfitted by reason of age or faultiness for proper use and occupancy, due notice being given, should undergo imperative reconstruction. But in any and every case the building must be rendered fire-proof. It is, indeed, the antithesis of all convenience that people should be liable to be burnt alive. Frightful casualties are of incessant occurrence, casualties which are at once the opprobrium and the condemnation of existing modes of construction. Whatever be the style adopted, our towns ought to be rendered beautiful. Green trees I would have growing in every thoroughfare, pictures hung in every dwelling, busts or statues recessed in every wall. In respect of sculpture and architecture, I greatly prefer the Italian style myself, with its balustrades, arcades, and campaniles; but I am free to confess that I have seen Italian structures, or what were so misnamed, excessively ugly, and structures perfectly beautiful that were not Italian at all. Let each erection, then, be at least good and sufficient, and, if only it may be, beautiful also. Why must houses be *fac similes* of each other, interminable rows of unmitigable ugliness. If I had my will, I would have no two absolutely alike, but different from each other, as are the lily and the rose, each perfect, and each beautiful. *Viser Dieu* should be our motto here, as in everything else, for in God resides all beauty. Our cities and towns are flagrantly deficient; street and houses, at once individually and collectively, bald, dreary, characterless. Houses in former days possessed, at least often possessed, an individuality now almost extinct. The only improvement within the last hundred years has been to recess the windows somewhat, instead of having them on a staring level with the exterior walls, too often, however, owing their miserable tenacity, to project unpleasantly into the interior of the chambers. In Normandy and the Low Countries it is often a perfect treat to walk through the old towns. Once, I remember, I had a midnight ramble, by moonlight, through some of the older streets of Rouen. Every deformity was veiled, and the effects were perfectly enchanting. No single elevation ought to be raised without the aid of a competent constructor—a man of real taste, refinement, and skill; in short, an architect. But houses in thousands, nay, tens of thousands, are run up, to use the patent phrase, by persons who, because they happen to know how to lay a brick, or plant a rafter or a joist, imagine themselves equal to every artistic requirement. A builder, I freely admit, may be most able, intelligent, and industrious, but he is not, therefore, an architect—is he? Everyone ought to stand upon his calling. We do not require a gardener to draw up an outline of the vegetable kingdom, an apothecary to set forth the practice of medicine, or expect a man before the mast to sail ships across the seas. The builder may fitly execute, but it is the master, the architect's part to plan. At the same time, the young architect, I submit, while he has his Vignola at his finger ends, ought to be practically conversant with all his materials, and not be led away by the mendicant idea that outlay merely and art are one. The humblest, most inexpensive structure may be made to evince a real taste, the truest economy. The most beautiful remaining relic of ancient art in Athens, and, therefore, Greece, and the entire world, did not, I am persuaded, cost as much as I have many times seen expended on some staring monstrosity of white marble chimney-pieces devoid absolutely of design or taste, with glittering register stove, fender, and fire-irons to match. In every



case, then, I would call for the architect's aid, however simple the design. He alone can fitly realise grace, convenience, safety, and economy. Men who are their own exclusive architects are about as well advised as those who prove their own physicians or their own lawyers. Let the architect—for it devolves on him in a large measure to do so—cover the surface in country and town with erections at once pleasant to look upon and delightful to occupy. Architecture—true architecture, is, in fact, petrified poetry; it is a most magical art. If it be, indeed, true—and true it is most emphatically—that a “thing of beauty is a joy for ever,” a thing of ugliness is also a disgrace, a horror, and a desolation, so long, at least, as it is permitted to disgrace the soil on which it ought never to have been suffered to find a place.

The paper was illustrated by diagrams of Dr. MacCormac's inventions.

In a discussion which followed, Mr. Robert Young moved, and Mr. John Boyd seconded, a vote of thanks to the lecturer. Mr. W. Gray, A.R.I.A.I.; the Rev. J. O'Laverty; Messrs. Robert Watt and F. W. Lockwood; Dr. John Moore, President of the Medical Society; and the chairman, also took part in the discussion.

Dr. MacCormac having replied to the remarks made by the various speakers,

Mr. Vere Foster moved, and Mr. T. M. Lindsay (School of Art) seconded, a vote of thanks to the chairman, which was passed by acclamation.

### THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

On Monday evening last (Mr. Horace Jones, V.P., in the chair) Mr. J. Scott-Russell, F.R.S., read a paper “On the Central Dome of the Vienna Exhibition Building.” In giving a description of his particular work in the great building at Vienna, the author acknowledged the close connection between engineering and architecture, and the valuable aid that one can give to the other. He said that from the beginning to the end of the design he was deeply indebted to the members of the profession, and the drawings were all made for him by Mr. John Crace. Some modification had taken place to render the structure compatible with surrounding edifices, and in this respect he had equally had the cordial co-operation of the Vienna architects, the architectural features and decorations as now executed being the work of M. Hasenauer, who, at an early age, had earned high distinctions. The iron dome at Vienna is the largest vaulted roof in the world; it is 360 ft. in diameter, 1,080 ft. round, and covers nine times the ground of the dome of St. Paul's.

### SUBMARINE CONSTRUCTION.

At the meeting of the Institution of Civil Engineers, London, on Tuesday evening, the paper read was by Mr. Bindon Blood Stoney, M.A., M. Inst. C.E., Engineer to the Dublin Port and Docks Board—a gentleman whose skill is being so well tested and exemplified by the works in progress in our river and harbour.

Mr. Stoney's paper was entitled—“On the Construction of Harbour and Marine Works with Artificial Blocks of large size.” We make room for an abstract supplied to us:—

The author described a new method of submarine construction, with blocks of masonry or concrete far exceeding in bulk anything hitherto attempted. The blocks were built in the open air on a quay or wharf, and after from two to three months' consolidation, they were lifted by a powerful pair of shear legs, erected on an iron barge or pontoon. When afloat, the blocks were conveyed to their destination in the foundations of a quay wall, breakwater, or similar structure, where each block occupied several feet in length of the permanent work, and reached from the bottom to a little above low-water level. The superstructure was afterwards built on the top of the blocks in the usual manner by tidal work. By this method the expenses of cofferdams, pumping,

staging, and similar temporary works were avoided, and economy and rapidity of execution were gained, as well as massiveness of construction, so essential for works exposed to the violence of the sea. There was now being built in this manner an extension, nearly 43 ft. in height, of the North Wall Quay in the Port of Dublin. Each of the blocks which composed the lower part of the wall was 27 ft. high, 21 ft. 4 in. wide at the base, 12 ft. long in the direction of the wall, and weighed 350 tons. The foundation for the blocks was excavated and levelled by means of a diving-bell, the chamber of which was 20 ft. square and 6½ ft. high. When the men were at work the bell rested on the bottom. A tube or funnel of plate iron, 3 ft. in diameter, rose from the centre of the roof of the bell to several feet above high-water level. An air-lock in the top of this funnel afforded a passage up or down, without the bell having to be lifted out of the water. The material excavated was cast into two large trays, suspended by chains from the roof of the bell: when these were filled, the bell was lifted a few feet off the bottom, and the bell-barge was drawn a short distance away from the line of the wall where the stuff was discharged, by tilting the trays, and the bell returned to its work again. The hull of the floating shears was rectangular in cross section, 48 ft. wide and 130 ft. long. The aft end formed a tank, into which water was pumped to balance the weight of the block suspended from the shears at the bow of the vessel. The shear legs were rectangular tubular pillars of plate and angle iron, with a cross girder resting on the top; above this girder there were two sets of pulleys, through which were reeved the lifting (pitch) chains, formed of one or two flat links alternately. There were eight parts to each chain, or sixteen parts altogether, so that each part had to support, theoretically, one-sixteenth of the suspended block. The inner ends of the chains passed down to the deck, where they were controlled by a pair of powerful crab winches driven by a 14 h.p. steam-engine, which also worked a centrifugal pump for filling or emptying the tank. The slack of the chains, after passing through the crab winches, was led under the deck, and was coiled up in the engine-room over fixed pulleys by two donkey engines. When paying out chain the donkey engines were thrown out of gear, and the crab winches on deck hauled up the slack according as it was wanted. Two cast-iron girders were built into the bottom of each block, and at the end of each girder there was a rectangular hole. Four vertical tubes were built in the block over these holes in the girders, and the suspending bars were lowered from above and turned at right angles, so that their ends, which were T shaped, caught beneath the girders. The upper ends of the suspender bars were also T shaped, and were attached in a similar manner to the lower sets of pulleys through which the lifting chains were reeved. When a block was set in place, the suspended bars were turned back 90°, and withdrawn for further use. Each block had vertical grooves left in the sides, and when two blocks were in place these grooves formed a tube 3 ft. square. A mass of concrete was subsequently thrown into the grooves, to act as a key or dowel between block and block; this completely plugged up the joints, which were only about ½-inch open on the face.

The paper also contained a description of an annular block of concrete 19 ft. in diameter, weighing 80 tons, which the author constructed for the base of a beacon tower, in the year 1863, and conveyed 2 miles down the Liffey, where it formed its own cofferdam in water 5½ ft. deep at low spring-tides. The water was pumped out by hand pumps, and the ground inside excavated, concrete being placed on the top of the ring as it sank, like the brick wells in India or the shaft of the Thames Tunnel.

The method of making concrete and mortar adopted by the author differed in some respects from that in ordinary use. He pre-

ferred a rapid mixture of the ballast or sand with cement or lime to the slow triturating process of the mortar pan with edge runners. The concrete mixer, devised by him, driven by a 3 h.p. engine, would turn out from 10 to 12 cubic yards per hour. The mixer was a fixed horizontal or inclined trough, open on the top, with a longitudinal axis, having stout iron blades at short intervals, which, as they revolved simultaneously, pugged the materials and screwed them forward. The water was let on gradually through a rose, and the first few blades incorporated the materials in a dry state before they reached the water.

The author believed the application of the new system of gigantic blocks to the construction of breakwaters would, in many cases, be cheaper, more rapid and more permanent than the ordinary methods of construction.

It was announced that the discussion, which had been commenced, would be resumed at the meeting of Tuesday next, the 17th inst.

### WATERFORD AND MILFORD HAVEN IMPROVEMENTS.

THE improving of the navigation of the Suir and other works in connection with the quays and river, when completed, will add much to the commercial importance of the City of Waterford. We learn that some other much-needed improvements in regard to Milford Haven are about to be commenced, to adapt that port to present times and wants. Application has been made to Parliament by Messrs. Bartlett and Co., of Tower Royal, Cannon-street, and a company has been set on foot, entitled, the Milford Dock Company, with the object of constructing a dock with 40 acres water area, 24 acres at least of which are to be deep enough for floating the largest vessels, and suitable wharves and warehouses are also to be provided. Two graving docks of large dimensions are included in the design, the one 400 ft. long by 90 ft. broad, and the other 700 ft. by 115 ft., the latter being sufficiently commodious to admit the Great Eastern. The capital required is £250,000, of which a large amount is stated to have been privately subscribed.

### CORRESPONDENCE.

#### NELSON'S PILLAR, SACKVILLE-STREET.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—As the project of removing Nelson's Pillar from its present position has excited a great deal of interest and approval, the following particulars with reference to it, from Whitelaw and Walsh's “History of Dublin,” may not prove uninteresting to your readers:—

“The foundation-stone was laid with much ceremony, attended by the civil and military authorities, with the Lord Lieutenant at their head, on the 15th day of February, 1808, three years after the Battle of Trafalgar. The design of this triumphal column was given by William Wilkins, Esq., architect, Fellow of Caius' College, Cambridge. It is of most ponderous proportions, which is not relieved by the least decoration. Its vast unsightly pedestal is nothing better than a quarry of cut stone, and the clumsy shaft is divested of either base or what can properly be called a capital. Yet with all its baldness and deformity it might have had a good effect when viewed at a distance, or placed anywhere else; but it not only obtrudes its blemishes on every passenger, but actually spoils and blocks up our finest street, and literally darkens the two other streets opposite to it, which, though spacious enough, look like lanes. There were objections to its site at first, but they are now become still stronger since the building of the new Post Office close to it, for by contrast it in a great measure destroys the effect of one of the finest and largest porticos in Europe.”

These criticisms were made in 1818, and apply with still greater force at the present day, when the traffic in Sackville-street is at least treble what it was at the time of its erection. Such an immense mass of masonry should be placed in the centre of a large space such as Stephen's Green or the Phoenix Park, to either of which places I hope soon to see it removed; it cuts in two what would otherwise



be a street of noble proportions, and I trust that the trustees or custodians of it, whoever they are, will accede to the wishes of the public, and have it taken away, to effect which I have not the slightest doubt the citizens would contribute. The following are its dimensions and first cost:—

|   | ft. | in. | ft. | in. |
|---|-----|-----|-----|-----|
| "The pedestal, whose diameter is 20 ft., is - - - - - | 30  | 1   |     |     |
| Shaft of column (diameter 20 ft. at bottom) - - - - - | 71  | 8   |     |     |
| Capital - - - - -                                     | 7   | 0   |     |     |
|   | 78  | 8   |     |     |
| Epistilium and plinth at top for statue - - - - -     | 12  | 6   |     |     |
| Statue - - - - -                                      | 13  | 0   |     |     |

Total height of column and statue 134 3  
Materials, expenditure, and receipts— £ s. d.

|  |       |    |   |
|--|-------|----|---|
| 22,090 cubic feet of black stone, and 7,310 do. of cut mountain granite, with stonecutter's bill, per contract - - - - - | 4,876 | 11 | 3 |
| Flagging, railing, painting, and carpenter's bill - - - - -  | 710   | 15 | 8 |

|   |        |    |   |
|---|--------|----|---|
| Cost of pillar - - - - -                                    | £5,587 | 15 | 8 |
| William Kirk, sculptor - - - - -                            | 300    | 0  | 0 |
| Portland stone, model, scaffolding - - - - -                | 329    | 2  | 3 |
| Cost of statue (£629), with lamps and flag-staffs - - - - - | 83     | 0  | 9 |

|                                 |        |    |   |
|---------------------------------|--------|----|---|
| Total cost of pillar and statue | £6,299 | 18 | 8 |
| Contingent expenses - - - - -   | 556    | 9  | 7 |

Total expenditure £6,856 8 3

|  |       |    |    |
|--|-------|----|----|
| Amount of subscriptions - - - - -  | 6,608 | 16 | 6  |
| Concert at Rotundo - - - - -   | 137   | 9  | 10 |
| Interest on money lent - - - - -   | 499   | 7  | 3  |
| Entrance money to ascend column for one year at 10d. each person, deducting cost of attendance - - - - - | 92    | 13 | 7  |

|                             |        |   |   |
|-----------------------------|--------|---|---|
| Total receipts - - - - -    | £7,138 | 7 | 2 |
| Total expenditure - - - - - | 6,856  | 8 | 3 |

Balance, cr. - - - - - £281 18 11

Laid out in stock, which, with the entrance money, is to keep the monument in repair."

It will be seen from the above that its cost was £6,856. If it were to be built at the present day, I am positive, from the increase in labour and materials, it would cost double this amount. I think a subscription list ought to be opened to defray cost of its removal and re-building, which I estimate would be about £1,500.

AN ARCHITECT.

## THE GAS QUESTION.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—In the *Daily Express* of the 3rd inst. appeared a copy of a letter addressed to Committee No. 1, Dublin Corporation, and signed "J. Byrne, T.C.," on the Gas Question, in which he states that he assisted, at a cost to the city of £2,000, in opposing and bringing to its present state the Alliance and Consumers' Gas Bill of 1871. In the issue of the same journal of the 22nd ult. appeared a report of the meeting of the proprietors of the Alliance and Dublin Consumers' Gas Company, at which the chairman is reported to have said—"In 1871 a bill was promoted by the Corporation for the purchase of the Gas Works. They opposed the bill, and the result was that an agreement was entered into which constituted the illuminating power of the gas 20-candle." Without inquiring in which of those statements truth is sacrificed, I will to some extent endeavour to shew the serious loss entailed on the ratepayers and gas consumers by the operation of that Gas Act.

In the 4th paragraph of his letter, J. Byrne, T.C., states that, under the Gas Act of 1866, gas supplied to the public, tested at the photometer, with the consumption of 5 cubic feet per hour, gave an illuminating power of 16 candles; whereas the same quantity and quality of gas, when used at the consumers' burners, gave only an illuminating power of from 11½ to 13 candles, thereby requiring the consumption of nearly 7 cubic feet per hour in the production of a light of 16-candle value. And in the 3rd and 5th paragraphs he makes the statement, that the standard of gas fixed by the Act of 1871, 20-candle, is enjoyed by the consumers at their burners without any loss whatever, same as when measured at the photometer, a departure from which would work a loss to the consumers.

The truth of both these statements is contradicted by a comparison of the bulk of gas used, and the

amounts of money paid for it each quarter of the years 1870 and 1872. That the 16-candle light of 1870 was of much greater illuminating power than the so-called 20-candle light of 1872 (extract of Boghead mineral), admits of no denial from any person who had to work by its light, while those who had to pay for it know to their cost that their quarterly gas bills were fully one-third greater in 1872 than in 1870. The following table (one of many in my possession that will be used at the proper time and place) shews the bulk of gas consumed, and the sums paid for it, each quarter during each of these two years, by a consumer burning one light from dusk p.m. until 1 a.m. every day; the figures in it are copied from the company's bills, also in my possession:—

| Years | Quarter ending— |            |            |            |              |            |            |            | Total Bulk | Total Cost |
|-------|-----------------|------------|------------|------------|--------------|------------|------------|------------|------------|------------|
|       | March           | June       | September  | December   | March        | June       | September  | December   |            |            |
|       | Bulk            | Cost       | Bulk       | Cost       | Bulk         | Cost       | Bulk       | Cost       |            |            |
| 1870  | Feet s. d.      | Feet s. d. | Feet s. d. | Feet s. d. | Feet s. d.   | Feet s. d. | Feet s. d. | Feet s. d. | Feet s. d. | Feet s. d. |
| 1870  | 2400 11 10      | 1200 6 2   | 1600 7 11  | 2900 13 10 | 8100 1 19 9  |            |            |            |            |            |
| 1872  | 2900 13 10      | 2100 10 2  | 1400 8 5   | 3700 1 1   | 10100 2 13 6 |            |            |            |            |            |

The artificial light required by this consumer for the same number of hours in each of these two years was imperfectly obtained in 1872 by an extra consumption of 2,000 cubic feet of gas, at an extra cost of 13s. 9d.; and I may here add that 20-candle gas, where in use, is found to be clearer, cleaner, and cheaper than 16-candle, less gas being consumed.

In paragraphs 6 and 7, the seeming innocent candour with which he volunteers his opinion of the motives which influenced the Gas Company to undergo the expense and trouble of obtaining a new Act of Parliament, is quite refreshing, while his lament of the £2,000 thrown away in obtaining his Act of 1871 is supremely ridiculous, recalling to mind the reduced gentleman, turned muffin-seller, who whispered, "I hope nobody hears me" after each tinkle of his bell, and might well have caused the members of Committee No. 1 to exclaim, "*Ne sutor ultra crepidam!*"

Would not J. Byrne, T.C. be doing his duty towards the ratepayers whom he represents, much better in compelling this Gas Company to carry out its contract with the citizens, than in finding fault with its having a lesser or greater amount of capital invested in its trade? What has he, as a member of the Dublin Corporation, *legally* or *morally* to do with that? The opinion of an eminent gas engineer (twelve months ago we had two of them, at twenty guineas each per day) is to be taken; and, if his report does not already exist *cut-and-dry*, let us hope he will recommend the taking up of miles of rotten, porous gas pipes throughout the entire gas district, the amount of leakage from which has never yet been truly reported, their being replaced by new and perfect castings, before J. Byrne, T.C., is again permitted to throw away £2,000 or more on his amateur gas engineering, or in giving his assistance to this Gas Company, either underhand or openly, to burthen the ratepayers of Dublin with their rotten, worn-out plant, attempting to lessen the effects of the leakage of which, we may presume, has left them unable to contradict the repeated impeachments of their gas meters during the past sixteen months. The old mains so taken up can be sold along with the old iron already advertised for sale, and help to eke out a dividend for the shareholders at the next or some future half-yearly meeting.

Neglected Dublin, in its glory of being the dirtiest city in the empire, cannot find money to pay for the sweeping up and carting away of the mud from its thoroughfares; cannot afford to give two of the disused basins to be used as public baths; or to have free public reading-rooms and lending libraries for the use of the humbler class of its citizens; without proper sanitary arrangements, a public convalescent establishment, an hospital ambulance, or an efficient system of domestic scavenging—*must* find money to pay increased salaries to already over-paid officials, to pay for the opinions of eminent gas engineers, to pay useless treasurers, and large sums "thrown away" on bungling amateur gas legislation.

JAMES KIRBY.

Dublin, 41 Coffe-street,  
11th February, 1874.

## TIMBER SALES AT DUBLIN AND LIVERPOOL.

IN our advertising columns will be found an announcement by Messrs. Richard Martin and Co., 33 Sir John Rogerson's-quay, that on the arrival of the "Kiel" from Minatitlan they will offer for sale by auction her cargo

consisting of 245 logs and log ends of mahogany.

We have also to draw attention to a sale by Messrs. Farnworth and Jardine on Friday next at the North Docks, Liverpool, at which will be submitted various choice lots of mahogany, cedar, &c., as also some thousand pieces of deals and scantling.

## THEDDINGWORTH CHURCH, LEICESTERSHIRE.

A PAINTED glass window in the Renaissance style, to the memory of Mrs. Elizabeth Lyne, wife of the late Robert Edwin Lyne, Esq., has recently been placed in the parish church of Theddingworth, Leicestershire. This window is remarkable as a work of high refinement, and it is one of the few specimens of painted glass admitted to the International Exhibition of London of last year, where it was highly approved of by connoisseurs.

This window is from the design of Westlake, who is so well known as the artist of some of those admirable figurers of the great artists of various periods, executed in mosaic on the walls of the north court of the South Kensington Museum. Mr. Westlake, in the work we are now describing, has in a most successful manner rendered the peculiarities of the Renaissance style, and throughout the work a learned adaptation of its characteristics is evident. The figures are drawn with much delicacy, and an abundance of minute detail is introduced, but the harmonious and refined coloring gives to the whole repose and breadth.

Under three canopies of rich ornamentation the subjects occur, viz.—In the centre light, the Virgin, seated, with the infant Christ; in the right light is represented our Saviour obedient to his parents; and in that on the left hand, Hannah presenting Samuel in the Temple.

We believe this to be one of the most successful works, in this particular style of art, that has of late years been produced, and it is highly interesting as a fine instance of a style that has but few exemplars, especially in that part of England where it occurs. [See Illustration in this number.]

## THE ROYAL IRISH ACADEMY.

A GENERAL meeting of this body was held on Monday evening at the Academy House, Dawson-street.

The Rev. PROFESSOR JELLETT in the chair. There were four papers on the list for the evening, but two only were read, viz., "On the Fossils of Kiltoreen, Co. Kilkenny," by W. H. Bailey, Esq.; and "On Experiments on the Movement of Water in Plants," by Dr. M'Nab, Royal College of Science. Both papers were referred to Council for publication.

The following were balloted for, and admitted as members, viz.:—Wm. Gray, Mountcharles, Belfast; John Christian Malet, M.A., Trinity College, Dublin; Rev. Edmund McClure, A.B., University-square, Belfast; Henry Burden, M.D., Belfast; Rev. Nicholas Foster, Stillorgan; and Richard Moss, Esq., Mary-street.

## THE ROYAL DUBLIN SOCIETY.

THE fourth evening scientific meeting for the session of 1873-4 will be held on Monday evening next. Professor Hull, F.R.S., director of the Geological Survey (Ireland), will deliver a discourse on "Glaciers, Ancient and Modern." Ladies are admissible on this occasion. At the conclusion of the discourse, the Natural History Museum will be thrown open to the visitors.

We understand that the distribution of the prizes to the students of the Schools of Art, announced to take place on next Tuesday evening, has been postponed until Friday evening, when his Excellency the Lord Lieutenant will perform that pleasing task.



## NOTES FROM LONDON.

On the ground cleared by the extension to Holborn of the London, Chatham, and Dover Railway Company, Messrs. Cassell, Petter, and Galpin are making large additions to their printing and publishing premises. The excavations for the foundations alone have been unusually heavy, and have occupied upwards of twelve months. Several interesting antiquarian discoveries were made during the progress of the works. In the course of the excavations the bed of the old Fleet Ditch was reached, and on it were found the remnants of several old boats, whilst in other portions old coins were met with; but the most interesting discovery was a sarcophagus hewn out of the solid stone, in which were the skull and other portions of a skeleton, believed to be that of a man from its great length. The sarcophagus and its contents were taken to the City Museum, where they are now deposited. The principal elevation of the new building will be in Fleet-lane, to which it will have a frontage of 227 ft. in length and 70 ft. in height. In the centre there will be a lofty tower, carried to a height of 150 ft., and the new building will be connected with the existing premises, which, when the works now in progress are completed, will cover a ground area of nearly two acres in extent. The architect is Mr. F. Chambers, of Bow-lane, and the contractors for the foundations are Messrs. Elkington. Mr. J. R. Wilson superintends the works as the architect's representative, and Mr. Brodie is the clerk of works.

The Midland Railway Company have excavated the site of the old Whitecross-street Prison to the level of the Metropolitan Railway, for the purpose of forming an extensive goods station and warehouse. The junction of the intended depôt with the Metropolitan line will be on the south side between the Moorgate-street and Aldersgate-street stations. The warehouses are to be erected on the east side of the site, with a frontage to Whitecross-street extending the entire length of the land, and they will be carried in the direction of Redcross-street to a depth of about 75 ft., thus covering a ground area of upwards of 2,000 square yards. The rest of the site, between the rere of the warehouses and the Redcross-street boundary, will be covered with metals for the goods wagons, communicating by sidings with the Metropolitan line. The warehouses themselves will be an unusually lofty block, being 80 ft. in height, and consisting of six storeys above the railway level of the station. They will be built of red brick, with dressings of Portland stone, and will in every respect be of the most substantial character. There will be entrances to the warehouses in Whitecross-street, as well as from the rere of the building on the railway, low level. Messrs. Mansbridge are the contractors for these extensive works, which, it is said, will take about two years from the present time to complete. The contract amounts to upwards of £130,000.

The defective ventilation of the City Museum at the Guildhall has been brought under the notice of the Common Council, and Dr. Sedgwick Saunders states that the committee have now under consideration a scheme for improving the ventilation of the building by means of an additional shaft.

The Port Sanitary Committee of the Corporation, under the presidency of their new chairman, Mr. Bengough, is likely, in the opinion of the *City Press*, to be actively engaged during the current year in organizing and perfecting a system of sanitary surveillance in the Thames, its docks, and its tributaries. A large map has been designed by the medical officer, and prepared by Messrs. Stanford, for the use of the committee, which shows at a glance the entire jurisdiction of the Port of London sanitary authority, and also the exact boundaries of each and every district (some fifty in number) that surround the waterway. Cholera is still lurking about Rotterdam, and so special

attention is paid to all arrivals in the river from that port. The question of providing proper means of locomotion for their officers is now engaging the attention of the committee. A half-yearly report has been submitted to the committee, Dr. Harry Leach giving a complete sketch of the geography of the district, an account of work performed since the election of that officer to his present post, and a variety of other information pertinent to the subject.

## THE MAGAZINES.

Among the magazines of this month, the *Gentleman's* claims particular notice for several interesting papers. "Olympia," will prove, we think, a most attractive and striking story. "The Last Parliament" is a well written and thoughtful paper, and wholly unbiassed. Mr. Archibald Forbes, the late war correspondent of the *Daily News* during the Franco-Prussian struggles, contributes an amusing sketch of a London Christmas Day on a four-wheeled "Growler." The "Recollections of John Keats, the poet," by Mr. C. C. Clarke is an excellent contribution. The serial story, "Clytie," continues with sustained power and interest. Those who feel an interest in the issue of the Tichborne trial, and who may have admired the pluck of the counsel for the claimant, will possibly read the sketch of "Dr. Kenealy as a poet," as also "A Study," with pleasure. It is perhaps needless to tell our readers that the doctor hails from this side of the channel, and that he is not the first Irishman of his name who has been a poet, journalist, and lawyer. The remaining papers in the magazine are good of their kind, and the "Table Talk" of Sylvanus Urban is racy and agreeable. The new editor is performing his duties well, and is making the pages of the magazine most attractive by the varied contributions that appear.

## INSTITUTION OF CIVIL ENGINEERS OF IRELAND.

The usual monthly meeting of this Institution was held on Wednesday last, in the Museum Building, Trinity College,

CHARLES P. COTTON, Esq., President,  
in the chair.

After the adoption of the report and statement of accounts for the year 1873, the President proceeded to deliver his address.

After thanking the members for his election, he proceeded to notice some of the chief engineering works which have been carried out in Ireland since 1860, when the late Mr. M. B. Mullins gave an exhaustive history of Irish engineering to that date.

Though the additional mileage of railways in Ireland since 1860 has been very great, with the exception of the Westport and Wexford lines it has all been in small branches. The total length is now 2,066 miles.

The President next alluded to the narrow-gauge question, and expressed his belief that it would never be found to answer for short branches, which had much better be made of the usual gauge with light rails.

He next drew attention to the way in which the influence of the great English railway companies was being felt in Ireland, and the probable competition that will ensue on the completion of the Rosslare Harbour.

The number of Irish bills in Parliament this session is thirty-three, of which twenty-two are for new works. The reclamation of slob lands from the sea was then adverted to.

The discrepancy between various tenders for the same works was then touched on, and an interesting table of wages on railway and canal works from 1830 to the present year given.

The President next gave a detailed history of the twenty-six projects for uniting the Dublin railways which have at various times been brought forward.

The improvements at Greenore, in the River Liffey, the Spencer Dock, and the new

harbour in course of construction by Mr. W. Purdon at Rosslare, were briefly described.

The new lighthouses of Calf Rock, Tearaght, Arranmore, Blackrock, and Blacksod, were then alluded to, and the repair of the Fastnet described.

The President drew the attention of the members to Mr. Haywood's report to the Commissioners of Sewers in London on the various materials there used for streets—granite setts, asphalt, and improved wood paving. From Mr. Haywood's report it appears that the preference is most decidedly to be given to the latter.

After some allusion to sanitary engineering, he described the new arrangement for giving the exact time to the Port and Docks Office from Dunsink, which was put in operation for the first time on that very day. He congratulated the members that the time was given by the Irish observatory, the arrangements made by an Irish electrician, and the clockwork entrusted to an Irish horologist.

In conclusion, the president appealed to the members to advance the interests of the Institution by letting all those friends who are properly qualified know of the advantages to be derived from it.

## THE ROYAL HISTORICAL AND ARCHEOLOGICAL ASSOCIATION OF IRELAND.

The annual meeting of this association took place at Butler House, Kilkenny, on the 21st ult.

PETER BURTCHAELL, Esq., County Surveyor, Kilkenny, in the chair.

Thirteen new members were elected.

The Rev. James Graves (hon. sec.) read the report of committee for past year, of which the following is an abstract:—

"Another year—the twenty-fifth since the foundation of the Kilkenny Archaeological Society in 1849—has passed away, and your committee comes once more to review the position of the association and count its gains and losses.

"Six Fellows and thirty-one members were elected in 1873. The number now on the Roll, allowance being made for deaths, withdrawals, and names removed for non-payment of subscriptions, amounts to 678.

"Two of the Founding Fellows, viz., Sir John Power, Bart., Kilkenny, and Peter Strange, Esq., Aylwardstown, have been removed by death, and the Association has also deep cause to lament the loss of one of the elected Fellows—John A. Purefoy Colles, M.D., F.R.C.S.I., of the Bengal Army, who died at Dinapore, February 8th, 1873. Your committee have no call to speak of the loss his profession has incurred by the premature death of Dr. Colles, but they feel that the cause of archaeology in Ireland has suffered a severe blow by the removal in the prime of life, of such an earnest student and unwearied worker in the field of his country's antiquities; whilst this Association has to lament the loss of one whose unselfish enthusiasm joined to qualifications for the work, of a high order, pointed him out as likely to prove a means of working its organisation, and keeping alive its usefulness in future years. Your committee has also to deplore the loss by death of one of their body, James S. Blake, Esq., J.P., Barrister-at-Law, whose name has often been mentioned in former reports as an active and efficient worker in the cause of archaeology. To Mr. Blake it is mainly due that the works of repair and conservation at Jerpoint Abbey were so efficiently carried out. Residing near that venerable structure, his influence as a resident gentleman and a magistrate was constantly exerted for its care and preservation; and your committee think it desirable that his place in that body should be supplied if possible by the election on the committee of a resident in the locality. Of several other members who have passed away during the year your committee have to record with regret the death of an old and warm supporter of the Association—the Right Hon. Chief Baron Pigot.

"The Report for last year mentioned that an appeal had been made to the public of the County and City of Kilkenny to join with this Association in forming a Museum and Library in Kilkenny. It was confidently hoped that many, if not all, of those applied to, would be found possessed of sufficient public spirit to respond to this appeal. It is a source of regret that no such general response was accorded—only three or four replies being received in answer to hundreds of circulars issued.



The Museum and Library of the Association will still be open to the Fellows and Members, but it is to be regretted that no aid was given to throw them open to the public, and thus establish an Institution, which would redound to the credit of the locality.

"The valuable work which Miss Stokes is editing for the association, has reached the conclusion of its first volume, which, with title-page and index, has been issued to the Fellows, and those members who subscribed specially for it during the years 1870, 1871, and 1872. This portion of 'Christian Inscriptions in the Irish Language' comprises 86 pages of letterpress and 74 plates, and has attracted the attention of students of the Irish Language and of Irish Art, not only in this country but on the Continent of Europe.

"A long-due number of the Association's 'Journal' (that for October, 1869) has been completed and delivered to members within the past year. Its bulk, nearly approaching that of an ordinary yearly part of that publication, will, it is hoped, atone for the delay in its appearance; and the nature of its contents, consisting of state papers and intricate pedigrees, will explain the reasons which deferred its issue. It is by the liberality of A. Fitzgibbon, M.C.E., one of our Fellows, that this contribution to the History of the great Desmond Geraldines has been presented to the association the entire cost of its paper, printing, and illustrations have been defrayed by him; and when to this is added the expense of transcripts made specially for the work, the sum cannot be placed much short of £200. The Right Hon. Lord Gort has also contributed towards the special expense of re-printing the pedigree of the Earls of Desmond. The thanks of the Association are also due to the Most Hon. the Marquis of Kildare for the presentation of a photographic print of the 'Fair Geraldine,' in the October No. of the Journal for 1873; and Sir W. R. Wilde has also kindly presented half the expense of the woodcuts, illustrative of his memoir of Gabriel Beranger in the July No."

(To be continued.)

## OUR BUILDING SOCIETIES.

At the recent annual meeting of the Irish Civil Service Building Society, in the report which was presented, the directors stated that out of the additional profits amounting to £1,827 9s. 6d., a bonus of 1½ per cent. had been declared and paid, making, with the ordinary interest, of 2½, a total of 4 per cent., free of income tax, for the half year. The payment of the bonus has absorbed £1,760 16s. 4d., and they recommended the balance of £66 13s. 2d. to be added to the reserve fund, which will then stand at £1,096 11s. 11d. The directors propose, in future, to pay an *ad interim* bonus in June, and such further balance in December as the profits earned during the year will permit, in addition to the ordinary division at the rate of 5 per cent. In conformity with the wish of the shareholders the directors submitted a new rule to the effect that the remuneration of the directors should be £300 for the past and each subsequent half year, to be distributed, as themselves see fit.

The proposal to fix the remuneration of the directors at £300 was objected to. There was also an objection made to the sum of £19 paid as trustees' fees, and it was proposed that £275 should be allowed to the directors for the past half-year, and £25 to the acting trustee. A discussion ensued, and the acting trustee (Mr. Hardinge) defended himself from an accusation of having obtained the lion's share of the directors' fees. He said there was no director had done so much for the society as he had, and was he to be called in from the country 37 times in the year as trustee, and receive no compensation? In consequence of what had been said he must resign the office of trustee. The directors had distributed the £600 among themselves, and left the trustees out of the distribution.

A division was then taken on the question whether there should be a sum fixed as the remuneration of the directors, and the question was decided in the affirmative by a majority.

It was then resolved that the sum should be £300 for the half-year.

It appeared from the remarks of the chairman that the society was conducted on the

most economic terms, the working expenses being only 1¼ per cent. on the capital. From what transpired at the meeting, it strikes us that a little more economy in the conduct of the Irish Civil Service Building Society would be desirable, in the interests of the shareholders. Also, if the society is as prosperous as what has been stated, more facilities should be given to the working classes to participate in them, as the society was originally intended to benefit these classes.

At the annual meeting of the Coleraine Building Society the report which was read suggested the extension of the co-operative system to such schemes as the introduction of arts and manufactures as were calculated to increase the prosperity of Coleraine. The balance-sheet showed at the last audit the net profit divided amongst the shareholders was £378 7s. 5d. against £267 7s. 9d., or £249 7s. 4d. in 1871, producing, in addition to a dividend of 5 per cent.—making 6 per cent. in all. The society, Mr. Steedman said, might very fairly claim credit for having induced gentlemen to build outside of the society, to improve the architecture of the town and suburbs; whilst many of the new houses, so very well known to all present as to make reference to them unnecessary, had all been built, with successive improvements, since the Institution was established.

Sir H. Hervey Bruce, the president of the society, in the course of his remarks adverted to the importance of having gardens attached to the labourers' dwellings, as having a civilising tendency. He also said that since last annual meeting he had it in his power, as the owner of the Clothworkers' estate, to give land for building purposes nearer the town. If they could agree upon terms, it would be one of the happiest ideas, and one of which he would be proud, if he had in any way helped them, or the members of the society, in aiding in the prosperity of the community, and the well-being of those amongst whom he resided by giving leases in perpetuity.

It was stated by a speaker at the meeting that, in a work lately under contemplation with reference to the navigation of the river, the commissioners found that they required £300 for its execution. The matter was laid before Sir H. Hervey Bruce, and he at once filled a cheque for the amount.

So long as the chief object of the Coleraine Building and Investment Society is to help the sober, industrious, and frugal man to provide himself the comforts of a cheerful, substantial, and, let us add, a healthy dwelling, rent free, so long will such an object have our hearty concurrence.

Many of our building societies are little better than failures, and their prosperity for a short period is taken as a criterion of the future prospects. Abuses are let creep into their management by the speculations of their directors, and the shareholders are not the only parties who are doomed to suffer. Building and Benefit Societies, well conducted, are capable of effecting a great amount of good.

## THE ROYAL HIBERNIAN ACADEMY.

THE Forty-fifth Annual Exhibition of the Royal Hibernian Academy of Arts will be opened to-morrow by His Excellency the Lord Lieutenant. The number of paintings is smaller than in previous years; those exhibited, however, are, in point of merit, above the average. The leading feature is the great picture lent by the Queen of the marriage of H.R.H. the Prince of Wales, by W. P. Frith, R.A., in which some hundreds of figures are introduced, the whole forming a magnificent historical picture. Our own academicians are well represented; the President, Mr. T. A. Jones, exhibiting several portraits, amongst others striking likenesses of the late Rev. Dr. Drew and Right Hon. Maziere Brady, together with several lesser notabilities. Messrs. Marquis, Watkins, Bridgford, Beechey, Duffy, and others contribute pictures with their respective cha-

racteristics. The short interval between the "private view" and the time of our going to press prevents us from doing more now than giving a brief notice of the architectural drawings, many of which were on view at the recent *conversazione* of the R.I.A.A. (283), pen-and-ink sketch of the R. C. Cathedral, Queenstown, by Mr. G. C. Ashlin. The style is Early French; the plan very simple for a cathedral, consisting of nave and aisles with transepts and apse, and large west tower at end of aisle. The nave walls have flying buttresses, and the transept and nave gables are perforated with large wheel windows. Mr. W. H. Lynn, R.H.A., exhibits two water-colour sketches in Bayeux (238 and 268), one with some quaint timber houses in foreground. (287) a pencil sketch by the same architect of a new Methodist church, Belfast, shews a large church, Decorated Gothic in style, with a tower which seems to us rather large for the church, which is dwarfed by comparison. The treatment of the details and grouping shew that Mr. Lynn has given a great deal of thought to this design. We have no doubt that the building will be still more satisfactory when executed than it shews in the outline pencil drawing. Mr. John Lanyon exhibits (284) a view of Stewart Institution, Palmerstown, County Dublin—a drawing far inferior in merit to the two beautiful pen-and-ink views of Donegal Castle exhibited by him at the recent *conversazione*. The water-colour sketches (266 and 275) of street in Dinan, Brittany, and Church of S. Jacques, Caen (267), by Mr. T. N. Deane, R.H.A., are just what water-colour views should be, treated with breadth and brilliancy; they form part of the large collection of beautiful sketches made by Mr. Deane on a recent tour. Mr. J. C. Antisell exhibits a number of sketches, amongst others (292) view of Adare Abbey, County Limerick, and Mitchelstown Castle, Co. Cork (285). The exterior and interior views of design submitted in recent competition for Emanuel Church, West Dulwich (278), by Mr. William Stirling, are two pen-and-ink drawings of a brick church with stone dressings. The tower at one side of apsidal side chancel is well proportioned, and is capped with a low pyramidal spire. The Celtic Cross (282) is a characteristic pen-and-ink sketch by Mr. Thomas Drew, R.H.A., of a subject which he has made his special study; it is well proportioned, and the general effect is satisfactory. The same architect exhibits a restoration of St. Nicholas Church, Carrickfergus (288). Mr. S. P. Close sends a pen-and-ink drawing of M'Garel Almshouses, Larne; the tower is rather ornate for the simple treatment of the adjoining houses. (286) Carrickfergus Castle is a pencil sketch by the same artist. Mr. J. R. Carroll sends (289 and 297) Classebawn, Co. Sligo, a marine residence in the castellated style, with angle turrets and battlements, and Alinton Church, County Limerick. Mr. J. J. O'Callaghan exhibits (291) a design for New Town Hall, Winchester (of which a view appeared in our volume for 1872). (291) south west view of Clifden Church is by the same artist. Messrs. M'Curdy and Mitchell send a view of Grand Staircase, Cloyne Castle, Co. Westmeath, which shows a great deal of originality; it is in the Italian style. (290) Design for new R. C. Church, Aughrim-street, by Mr. J. S. Butler, in course of erection.

## NEW WESLEYAN CHURCH, RATHGAR.

THE foundation-stone of a church for the Wesleyan Methodist body was laid on Thursday last, at Brighton-road, Rathgar. It will be in the Early English style, and comprise a nave and two aisles, with a handsome tower fronting the road. The roof will be open-timbered, and, as also the benches and fittings, will be of pine, stained and varnished. The design is by Mr. Thomas Holbrook, C.E., and Messrs. J. and W. Beckett are the contractors.



## TO CORRESPONDENTS.

**R.H.A.**—Doctors, you see, still differ, and so do lawyers within the courts. It is a human weakness, too, with some architects to be severe critics of the works of their professional brethren. "Take a note, and point the moral."

**SANITAS.**—The Dublin Sanitary Association have reported the matter to the Public Health Committee. This year we shall see what the latter body will do. It is doing a something, and is a precious long time engaged in doing it.

**THE CORPORATION BALANCE-SHEET.**—We have not seen the Report for the year ending AUGUST, 1873. It is probably in the printer's hands, who, no doubt, has "his hands full" in correcting the errors and making both ends square.

**AN ARCHITECT (London).**—We had seen the quotation previously. As humble as we are, we can afford to spare a little originality to help the mediocrity of our brethren. There are some people in this world who will never acknowledge anything, and, though too proud to ask, are not ashamed to steal, particularly when they think nobody is watching them.

**IRISH BUILDING STONE.**—The fronts of several of the old public buildings of the last century in Dublin are of mountain granite, from Dalkey and one or more districts in Wicklow or borders. In the articles of a co-labourer which have been appearing in recent issues of this journal, the chief localities of the building stones of this country are stated. To these articles we would refer a correspondent and others, and also to the previous articles on "Building and Ornamental Stones," in review of Professor Hull's work upon the subject, in last year's volume.

**A RATEPAYER.**—In next issue we will gratify you with a few extracts among the nice salaries paid to assistants' assistants, and other principal deputies' and sub-assistants' assistants. Precious lot, eh?

Several communications unavoidably held over.

**BREAKFAST.**—EPPS'S COCOA.—GRATEFUL AND COMFORTING. "By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & Co., Homoeopathic Chemists, London."

**MANUFACTURE OF COCOA.**—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—*Cassell's Household Guide*.

## NOTICE.

*It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.*

*Correspondents should send their names and addresses, not necessarily for publication.*

## TO THE NOBILITY, GENTRY, AND ARCHITECTS OF IRELAND.

MY LORDS AND GENTLEMEN,

Now that the works for which I have contracted with you are nearly completed, and, I trust, to your satisfaction, permit me to return you my very sincere thanks for the kind patronage which, for years past, I have received at your hands; and to add that I shall at all times be prepared to accept of you further favours, and hope, by diligence and application, to give satisfaction generally in all my engagements.

The works at which I am at present engaged are as follows:—

The Exterior of Curraghmore House, the residence of the Most Noble the Marquis of Waterford, for past two years.

The Exterior and Interior of Loftus Hall, County of Wexford, the residence of the Most Noble the Marquis of Ely, for past two years.

Kylmore Castle, County of Galway, residence of Mitchell Henry, Esq., M.P., for past five years.

Ashford House, Cong, County Mayo, the residence of Sir Arthur Guinness, Bart., M.P.

The new Munster Bank, Dame-street, Dublin.

John George Adair's, Esq., residence, Rathdair, Queen's County, together with some minor works, which are also drawing to completion.

In conclusion, I would beg to add that I am now prepared to undertake any Contracts which I may be favoured with.

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January, 1874

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# The Irish Builder.

VOL. XVI.—No. 341.

Honours for Public Service.



ORDERS of merit, in one form or another, have existed from the earliest period of constituted society, and there is no reason for believing

that they will ever cease to exist. There are few, indeed, in the world, who have laboured earnestly and long for the public good who are not susceptible of a feeling of honest ambition, and a desire not to be wholly forgotten by their countrymen. The self-consciousness of meaning well and doing well brings with it a certain satisfaction and contentment; but it is, nevertheless, the duty of society to recognise worth and reward it, if it has contributed to its well-being. The desire of all earnest workers is to achieve success, for success in all ages commanded a certain fame, and fame generally secured honour. Great and good men there have been, no doubt, in the world's history who have worked unrecognised, and who have died unappreciated and unrequited. Many have drooped and died in harness for lack of pecuniary assistance, after wasting their own fortunes. But, apart from pecuniary considerations, there have been, and are now, numerous individuals who deserve well of their country by their labours, and whose valuable and life-long services have been devoted irrespective of religious sects or political parties. Every political epoch or Parliamentary Session witnesses the elevation of political partizans or professional supporters by the bestowal of distinguished titles, or orders of merit.

Cabinet statesmen often very justly select the really deserving, but instances are not rare where the titles conferred were not of a nature to command public approval, even in a party sense. A few professional men of late years have been justly honoured for their undoubted merit, but it cannot be denied that others owe their titles to circumstances apart from their services to society.

We have amongst us a sparse number of architects and engineers who owe their titles alone to professional and public worth, and this is to be regretted, for among these bodies at present are some men whose talents would do honour to any community. Some medical men of late years have been very fortunate both in their practice and by their titles, which they hold unenvied, save, perhaps, by a few of their jealous professional brethren. There are cases in our midst of men who have declined titles or honours—the exact reason for which we shall never fully know. Some few men, in all ages of the world, have acted thus; but their action has been no protest against orders of merit which they did not fail to recognise and respect in the persons of others.

What is needed in the conferring of honours is judicious selection—the selection

of men whose elevation will be endorsed by the general voice of the public, apart from any party bias. If this mode of action be adhered to, a title will be appraised at its proper worth by the individual honoured and the society of which he is a worthy member. Men who have benefited their country by their labours in the fields of science and art, are men who have strong claims upon the gratitude of the nation, or the Government of the nation; and, as occasion offers, we would like to see men of this class more often honoured, and not merely by a title, but by substantial reward, if their positions, public and private, necessitate it. We may be sure that no Government will ever fail, according to the tenure of its power, to distinguish between its powerful and meritorious supporters and those of lesser weight. The simple M.P. who enters on his Parliamentary career this Session commences, no doubt, his service with a certain ambition. Besides attending to the interests of his constituents, he naturally looks forward, if he has any stamina in him, to a day of recognition—he labours for an end with encouraging or pleasing results. Human life would be a rather blank existence if there was nothing upon earth but mere money worth struggling for. The humblest artizan and the most skilful engineer or architect hopes, on the completion of his work, to obtain an increase of credit thereby, apart from the mere money compensation for his services.

There is a universal feeling throughout society over the world to merit esteem for our labour, and to obtain it by a recognition in one form or another. Public benefactors are therefore entitled to more than common recognition at the hands of the State. We therefore put in a claim, and it is a strong one, on the part of those who have devoted their lives to works of sanitary and social reform. There are men in our midst whose untiring labours to elevate the poor in their homes and surroundings, and to secure for them and their offspring the two great boons they stood most in need of—education and health—are beyond all praise. It is to the labours of these true reformers and philanthropists that we owe the existence of a new science, and the foundation of a system of sanitary legislation based upon the unerring laws of health. It is to the labours of these men that epidemics are no longer constant visitants to the British Islands, and that the mortality is nearly reduced one-half. It is to the labours of these men that our cities and towns have a pure and constant water-supply, and that cases of blood-poisoning by drinking impure water are now rare. If any class of men deserved to be honoured, and honoured and esteemed even more than what the circumstance of a title combined might command, they are the class of men we are alluding to. These now untitled, but not unhonoured, workers, are the true saviours of modern society; and as time advances their true worth will be estimated. The man who succeeds in making two blades of grass grow where only one has grown before, is said to be a benefactor to his race. How much more is he or they who have succeeded by their labours in making not only two blades of grass grow, but more than six human beings to grow, and live, and labour in health, where only one laboured in a kind of living death before?

Statesmen of Britain, apart from the warring politics and feuds of the time, in looking

ahead for the breakers that may lie in your way, do not overlook the platform of the society which supports you! Look inward as well as onward, and rest assured that the foundation-stone of prosperity and power is a firmly-laid and well-established public health. The legislation of the future must be sanitary as well as political. Practical political philosophy embraces social science, and social science means the elevation of man and all his surroundings in society. There is a clear road before the Government of today in the matter of sanitary legislation. Thirty years ago—yea, even a quarter of a century since, sanitary matters were in a crude state indeed, but all now, or nearly all, is reduced to a system. There is now little room for doubt and misgiving; the materials are to hand, and the Government of the country need only to boldly do their duty. Let us remind them, however, that they have long overlooked the pioneers and labourers whose footprints may be traced in many a field, and the record of whose toil may be found in many a well-thumbed volume. Many men have been honoured by the late Government, and we dare say some more will be honoured by the present one. Whenever dignities may be again conferred on really deserving men, we hope that the statesman who now wields the destinies of Great Britain in his hands, will not forget those professional and other workers who have laboured in the interest of sanitary science and the public health, and whose claims can be ascertained by the length of their services and the extent of their works.

## HEALTH AND SANITARY LEGISLATION.\*

SANITARY literature, or the literature of public health, is growing, and though of late years we have had many essays in this direction, not a few of them were hashed-up matter—made up by picking the brains and the published works of real sanitary labourers. The present volume is well-timed, and is pretty fairly put before the public. As may be seen, it is a joint production, as it was impossible for one mind to be thoroughly capable of grappling with the different aspects of the case as it related to public health *per se*, and to the public legislation thereon. From the diversity of the subject or subjects, of course the present volume, although comprehensive, cannot be exhaustive, and from year to year will need revisions and additions, as sanitary legislation is, to a great extent, merely tentative. We have a multiplicity of acts sanitary, or bearing upon sanitary matters—some new, some old, and all nearly imperfect. In consequence we have several acts bearing upon one another, and some passed with a view of amending former acts. Mr. Ernest Hart, in preparing the present volume for publication, availed himself of the knowledge of Mr. Michael, as far as it related to the legal portion of the subject; of Mr. Corfield, who is a professor of hygiene and public health, of University College, and also a medical officer of health; and of Mr. Wanklyn, who is a public analyst. The work is divided into three parts—the first having chapters devoted to, and in description of, the following subjects: Cen-

\* "A Manual of Public Health, for the use of Local Authorities, Medical Officers of Health, and others." By W. H. Michael, F.C.S.; W. H. Corfield, M.A., M.D.; and J. A. Wanklyn, M.R.C.S. Edited by Ernest Hart. London: Smith, Elder and Co. 1874.



tral authorities, local authorities, officers and powers of local authorities, roads and ways, sewers, water-supply, public and private lighting, nuisances in general; an index to statutes follows, pertaining to public health, arranged chronologically, with an index to powers under the sanitary acts, and an index to penalties under the same.

Part II. deals with routine duties, refuse matters, conservancy plans, water carriage systems, water-supply, epidemic diseases, overcrowding, ventilation, and inspection of trades.

Part III. deals with subjects of public health in connection with adulteration, and has chapters devoted to the purity and impurity of the following articles:—water, air, milk, butter, cheese, flour, bread, beer and wine, tea, sugar, and, lastly, the subject of disinfection is treated.

Strict justice demands that we should honestly bear evidence to the value and usefulness of this volume, and we have, therefore, no hesitation in saying that the "Manual of Public Health" is, and will be found, a very useful book of reference for the use of local authorities, medical officers of health, sanitary inspectors, and, we may add, the public, in their character of ratepayers. The latter body will learn that they have certain powers that they can exercise when the local authorities are remiss in their duties—and it would be well for the general interest if the ratepayers would exercise a little more vigilance than they do, but first they had better inform themselves of their exact powers.

From Part II. of the Manual we quote some remarks on water supply and methods of distribution. The subject will, we hope, be found instructive and interesting to our citizens, who have of late been lectured by corporate magnates anent the water supply and its waste in this city:—

"Water may be distributed to the houses either on the system of constant service or on that of intermittent service. In the former case the mains are always full, and as much water as is required can be obtained at any time in the houses. In the latter case the water is only turned on for a certain time—say a few hours in the day. Of the two systems there can be no doubt that from a sanitary point of view the constant supply is far the best.

"The great disadvantage of the system adopted—the intermittent system—is, that the water is exposed to sources of impurity in the cistern and other receptacles in which it is kept. These require (of whatever material they may be constructed) to be very frequently and thoroughly cleansed. They should be covered over, and those best constructed are of slate, with supply-pipes of wrought iron; for Mr. Rawlinson tells us that 'wrought iron service pipes are cheaper, stronger, and more easily fitted than lead.' But it must be added that leaden pipes and cisterns are not dangerous to the extent that is generally stated, for they become soon covered with a coating of carbonate and oxide of lead, which effectually prevents them from the further action of the water. This happens even with soft water.

"We have already stated that the destination of the waste-pipe of the drinking-water cistern is one of the most important points to be looked to in examining the sanitary condition of a house. With the system of constant supply there is no need of cisterns, except, perhaps, for the supply of water-closets. The water is drawn from taps placed on the rising mains, and there should be one for each storey of the house. These should be so placed that any leakage from them would cause considerable inconvenience to the inhabitants; and in the poorer parts of towns, the taps, for this reason, should be placed inside the houses and not outside of them. By these means, and with proper inspection of fittings, there is less waste of water with the constant system than with the intermittent system of supply. Where greater waste has been found to take place with the constant system, it has been where it has been adopted instead of the intermittent system with the same pipes and fittings. A difficulty which has occasionally arisen with the constant system is, that the supply runs short in the upper parts of houses at a high level. This must be obviated by the use of high level cisterns in the upper storeys of these houses. They should be provided with warning pipes ending in the open air."

In respect to the quantity of water needed for household, trade, and general wants in towns, we extract the following observations,

which embody a table of quantities which is worth knowing:—

"According to Professor Rankine, 'the supply of water in towns varies in extreme cases from about 2 gallons per inhabitant, per day,' and he gives the following table as containing fair estimates of the average daily consumption:—

|  | Gallons per Day. |          |           |
|--|------------------|----------|-----------|
|  | Least.           | Average. | Greatest. |
| Used for domestic purposes ..                                    | 7                | 10       | 15        |
| Washing streets, extinguishing fires, supplying fountains, &c. } | 8                | 3        | 3         |
| Trades and manufactures ..                                       | 7                | 7        | 7         |
| Total usefully consumed ..                                       | 17               | 20       | 25        |
| Water under careful regulation, say ..                           | 2                | 2        | 2½        |
| Total demand,  | 19               | 22       | 27½       |

"The least amount, then, that should be allowed is, say 20 gallons a day; and it is well to aim at a more copious supply, especially as the waste is almost always much greater than that allowed in the table. We may add here that the system of collecting rain water from the roofs, and utilizing it for the water-closets, or for washing, ought to be carried out much more fully than it is, and might certainly be easily adopted."

We thoroughly agree in the last remarks. A copious and constant supply is what we have ever advocated in this journal, and no water works are efficient if they do not yield water in sufficient quantities for the use of the inhabitants for which they were constructed.

We cannot bear to hear that people will be stinted in the amount of water they absolutely require for not only cooking and drinking purposes, but for purposes of washing and cleanliness. Of course we are opposed to reckless waste—particularly when a doubt exists about the continuance of the supply. A city or town, however, can never be maintained in a proper sanitary condition if it has not a copious, and constant, and pure water-supply.

We will return on another occasion to the volume under notice, as there are several matters described therein that need a fuller explanation and ventilation as well.

#### PROGRESS OF ART-EDUCATION IN IRELAND.

THE cultivation of art, and the dissemination of just views and right practice arising from a knowledge of the laws of nature and of the highest developments of art, as seen in the works of those races that have cultivated it with the highest degree of success both in ancient and modern times, has now become a matter of such national importance, as to lead us to regard with satisfaction the progress and development of a system of instruction such as is leading to results eminently calculated to advance the taste of the people, and the promotion of design as applied to all the various requirements of manufacture.

The most interesting ceremony of annual occurrence that takes place in Dublin, is that of the distribution of medals to the students of the Art schools of the Royal Dublin Society, by his Excellency the Lord Lieutenant. On Friday evening week, in the theatre of the Society, before an assembly more numerous and brilliant than has ever been witnessed on any previous similar occasion, Earl Spencer delivered to those who had distinguished themselves in their artistic labours, the awards gained by them in severe competition with the leading students of the whole of the Art schools of the United Kingdom, which now number nearly 150.

The brilliant successes of these schools for several years past, have been, during the last year, most worthily maintained; and when placed in comparison with the greatest of the Art schools of the United Kingdom, as Edinburgh, Glasgow, Manchester, and Birmingham, it is gratifying in the highest degree to find that our Dublin schools occupy the leading position. The number of works produced for transmission to London on the last occasion amounted to 893, as compared with

581 similar works forwarded in 1872. The studies competing for national awards, belonging in every case to the advanced stages of instruction, was 74, a greater number than has on any previous occasion been chosen. Such works are examined by those eminent authorities in Art—C. W. Cope, R.A.; R. Redgrave, R.A.; F. R. Pickersgill, R.A.; H. Weeks, R.A.; J. C. Horsley, R.A.; Owen Jones, and H. A. Bowler; and these gentlemen, in reporting upon the present position of the Dublin schools, remark upon their evident progress and increased activity, and speak in the highest terms of the manner in which they are acting upon the manufactures of the country; and they further express it is their opinion that the purposes for which these were established, viz., the promotion of art, pictorial and decorative, in Ireland, have been largely benefited by their action and enterprise under the direction of Mr. Edwin Lyne, who has during the past ten years so ably administered a system of instruction such as has led to their present high position. Lieut.-Col. Adamson alluded in terms of eulogy to the valuable services this gentleman has performed in the serious promotion of Art in this country, and to his conspicuous ability as an instructor.

The display of works emanating from this establishment, in the various great exhibitions in London and Dublin, have been remarkable as exemplifying the result of the highest development of Art education that has yet been attained to, and have, by the most competent authorities, been pronounced of such remarkable merit, as to even surpass the productions of the most celebrated of the Continental schools of art. These schools have especially directed their efforts to the teaching of a right adaptation of nature in ornamentation, in a manner calculated to lead to productions characterized by propriety in the application of form and colour, and as demanded by the exigencies of material and manufacture.

It is by such efforts that we can hope to maintain our supremacy as a manufacturing people. By associating Art with our manufactures we give to that which without ornamentation is of small value, an interest which raises it at once from the purely material to the æsthetic, and such as may render it priceless. The material which, fashioned by the true artist, carries with it the stamp of his genius, and becomes a thing of beauty, issues from the hands of the uninformed artificer bearing upon it the impress of ignorance and vulgarity.

The many difficulties that have been encountered in introducing a system of Art education of a sound and comprehensive kind, were referred to by the speakers, and the desirability of obtaining from the State assistance in establishing a museum of ornamental art, and which has been so long denied to this, the Metropolitan Art School of Ireland. With such a museum and other aids to study—such as are possessed by the South Kensington establishment—our students would be in a more favourable position to enter upon those arduous conflicts of skill with the pupils of that great and highly-favoured establishment.

The high degree of success that has attended the teachings and operations of the Art schools of the Royal Dublin Society causes us most sincerely to hope that no reasonable aid, with a view to their consolidation and completeness, will be refused by the Government. They are deserving of every consideration and support, as having taken the lead in establishing Art education on a sound basis in this country, and have led in a large degree to the correction of a perverted public taste; and, further, these schools have especially served to prove that the Irish race possesses instincts essentially artistic, and the national feeling is altogether in favour of, and calls for a general recognition of, this fact on the part of the Government, and such assistance as may enable an institution so well qualified for the task to disseminate its valuable teachings over wider areas.



# THE ROYAL HISTORICAL AND ARCHAEOLOGICAL ASSOCIATION OF IRELAND.

In our last issue we were unable to find space for more than the report of above-named association. We now print a portion of the proceedings at annual meeting, which we have no doubt will interest our readers.

On the motion of Mr. Watters, seconded by Mr. L. J. Ryan, the report of the committee was adopted, and the former honorary officers and committee were re-elected, with the name of Edward Hunt, Esq., Belmore, Jerpoint, in the room of the late J. S. Blake, Esq., added to the committee.

Rev. Mr. Graves referred to the circumstance of the British Association having arranged to hold its next annual meeting in Belfast. It would be proper that this association should be represented on the occasion, and that it should aid in forming the Museum of Antiquities which would be temporarily arranged there during the meeting. He had been in correspondence with Dr. Purdon, their Local Secretary for Belfast, on the subject, and had found that the Naturalists' Field Club of Belfast would co-operate with them in carrying out the arrangements, and it would be well if they passed a resolution on the subject.

The following resolution was then passed, on the motion of Mr. Prim, seconded by Mr. Robertson—

"Resolved—That it is desirable that the Royal Historical and Archaeological Association of Ireland should be represented at the meeting of the British Association, to be held in Belfast next August, and also that an exhibition of Irish antiquities should be opened for the members of the Association on that occasion. The General Secretaries are hereby authorized to make arrangements for that purpose, and, as the local knowledge and influence of the Belfast Naturalists' Field Club would enable them to act efficiently in the matter, that the Committee of that Society be requested to undertake the labour necessary to carry out the object in view; and the Committee of this Association are hereby authorized to co-operate and give all the assistance in their power to render the exhibition a success."

## PRESENTATIONS.

A number of books—chiefly the publications of kindred societies in the United Kingdom, Denmark, and the United States of America—presented to the Library, were laid upon the table.

Mr. Prim, on the part of Mr. Wilson, of Newlands, near Danesfort, presented to the Museum a very fine stone celt—the largest hitherto in the Museum—recently found on the latter gentleman's farm. It was an interesting circumstance that having been turned up by the ploughman, the antique would have been left unnoticed on the land, had not Mr. Wilson sojourned for some time in New Zealand and there observed the stone hatchets still used by the natives, from which he at once recognised the use to which this stone had been put in primeval times in this country. The material was hard green stone, and the end ground to a fine edge, showed a fracture apparently from a chip coming off whilst anciently in use.

Mr. Stanley, Tullamore, presented to the Museum eight ancient coins, some silver and some copper, and an old weight.

Mr. W. Lawless, Rose-Inn-street, and Mr. Lynch, Blackquarry, each presented a copper token of the last century.

Mr. W. H. Patterson, Belfast, presented a photograph of a very curious antique religious badge, on which the crucifixion was depicted, found in St. Donard's Church, Maghera, and now in the possession of Mr. W. J. Pigott, Dundrum, Co. Down.

Mr. Lenihan, J.P., Limerick, presented a photograph of an old "grey-beard," and other antiquities in his possession.

Mr. W. J. Knowles, Cullybacky, Belfast, presented a photograph of a very large and peculiarly ornamented bronze hatchet-shaped celt found in his land.

Mr. Kyran Molloy, Clonmacnoise, presented a rubbing from an old monument at Gallen Priory, King's County.

The Rev. P. Moore, P.P., Johnstown, presented a rubbing made by the Rev. Mr. Healy, C.C., Urlingford, of the floriated cross and inscription on a coffin-shaped tombstone in the old Church of Kildrinagh, near Urlingford. The inscription was in very old Lombardic letters, many of which were reversed by the sculptor.

Rev. Mr. Graves stated it would require a good deal of study of the rubbing to decipher the inscription. The monument was a very ancient and interesting one, and had escaped his own researches.

## THE ROUND TOWER, ST. CANICE'S CATHEDRAL.

Mr. Graves said he had received from Mr. Langrishe, Sion, a report on the reparation of the top of the Round Tower at St. Canice's Cathedral. Mr. Langrishe had intended, at the time he had drawn it up, to bring it under notice at this meeting, himself, but he was prevented from attending by a domestic affliction. The report was as follows:—

"The summit of the Round Tower adjoining St. Canice's Cathedral having become much dilapidated, and the stones composing the parapet having fallen in considerable numbers, at the request of the Rev. James Graves the work of repairing it was undertaken. On examination it was found that the mortar had almost entirely crumbled away from the stones composing the parapet, leaving them perfectly loose; in some places they had almost fallen down, and in one part even the flag on which the parapet rested had gone, leaving a complete breach.

"The Cathedral Vestry having voted a sum of £3 for the repair of the tower, and not supposing that the work would prove so difficult or costly as the event shewed, it was commenced at the beginning of last November. A scaffolding was run out through the windows, and a second tier formed by means of crimples, the boards being firmly lashed on all round, and on this platform the mason worked. The parapet was then thoroughly repaired all round with good mortar, and the joints were afterwards raked out and the whole parapet, outside and inside, and on the top, pointed with Portland cement; a great quantity of vegetable mould, rubbish, and stones, were removed from the top, and the roofing flags, which were found to be in wonderfully good order, relaid, and well pointed with cement, and all defects made good; the steps leading up to the roof were also repaired.

"There seems to be little doubt but that the arched roof and conical top were originally put on this and other towers by means of scaffolding run out through the windows, which were thus an architectural necessity, the shaft of the tower having been built overhand—the lantern thus formed at the top would also serve as a belfry."

Mr. Robertson thought, as there could be no doubt that there was originally a conical cap on the Round Tower, it would have been better, when making any repairs, to restore the cap according to the original design.

Mr. Prim, although having no doubt there had originally been a conical cap on the Tower, would not be for making any change. They could not make an actual "restoration," as they had no means of knowing what exactly was the original design, and if they attempted anything of the kind, they would efface an historical evidence in connection with the structure, of the removal of the cap and substitution of a parapet at some remote period.

Mr. Graves pointed out that, in addition to Mr. Prim's objection, the erection of a new conical cap would involve a very considerable expense. He considered what had been done, as reported by Mr. Langrishe, was very interesting, as solving the question as to how the old builders contrived to erect the Round Tower caps. It would be very difficult to get up scaffolding to such a height; but having built the shaft overhand, they had the opportunity, by means of the lantern storey at the top, to get out a scaffolding through the windows, as Mr. Langrishe had done, and thus put on the cap.

## GLENDALOUGH.

Mr. Graves read a letter from the Rev. J. Rowan, C.C., Glendalough, acknowledging the receipt of printed notices cautioning persons against injuring ancient sculptures, under the penalty of the law. These he would take care to have distributed, especially at the hotels and amongst the guides.

Mr. Rowan went on to report the result of researches made amongst some of the ruins. He stated that, "During the autumn we cleared the Trinity and Rhofeart churches. The former, as well as the latter, had been choked up with trees. These are all cut away. Trinity and the surroundings, when cleared out, presented no feature of interest beyond what we saw previously. There is, I believe, a large stone, flat, circular, resembling a mill-stone, lying in the corner of the church. We cleared the Rhofeart church very fully. Both Sir. W. Wilde and Father Clarke supposed the clearing would turn up many things, but nothing of interest came of it. Occasionally a flag would appear in the floor, but when turned over, it was found to contain no inscription, and it only covered a heap of ashes—probably the ashes of the dead. Father Clarke told me he had the inner part of the chancel dug into, and he was surprised to find in it some animal remains. Could anyone have desecrated it by burying these bones of animals? A little beyond Roundwood, on the margin almost of the Vartry, is a place called Knockatemple—the 'hill of the church.' Some few weeks ago Mr. Henry Keogh, of Roundwood, dug up some interesting remains—a very fine bell, like that of Armagh, a fine head, in good preservation, resembling that of a lady, with other objects of interest." In conclusion, Mr. Rowan expressed a hope that Mr. Graves might be able to visit Glendalough again next summer, and take part in the making of some further explorations amongst those venerable ruins.

## TUBRID CHURCH, COUNTY TIPPERARY.

The Rev. Henry Palmer, A.M., Vicar of Tubrid, sent a carefully-executed copy of the inscription on the tablet, bearing date 1644, over the doorway of the little old church of Tubrid, near Cahir, County Tipperary, erected to the memory of the Rev. Geoffrey Keating, D.D., the author of the "History of Ireland," and of many Irish poems. The tablet itself, he was happy to say, is in almost perfect preservation, but the old building is very ruinous. He suggested the expenditure of a small sum, if the Association could afford the outlay, which might arrest the destruction of the old church. The place was now under the control of the Board of Guardians, whose permission might be obtained for that purpose.

The meeting authorised the Rev. J. Graves to arrange for a reasonable expenditure in the way suggested by the Rev. Mr. Palmer, if he satisfied himself that any work of reparation would be judiciously carried out.

## INDUSTRIAL ART EXHIBITS FOR 1874.

THE board of management of the London International Exhibition propose to devote a space in the fine art galleries to the works of industrial art, designed or executed by those who have been, or are now, students of the art schools in the United Kingdom, with a view of bringing prominently before the public the beneficial influence of the schools in the production of fine art manufactures.

The works may be executed in any material, and may have been executed at any period, but must not have been exhibited before. They must be accompanied by the names of the producers, designers, or art workmen. The Society of Arts propose to award medals, according to its usual rules, to the most artistic objects. Manufacturers, designers, and art workmen, desirous of exhibiting works are requested to send in applications for space immediately, specifying that they desire that their works should compete for the prizes offered by the Society of Arts.

We hope the exhibits may be many, and that the Irish schools of art will afford some creditable illustrations of the working of art schools in this country. The students of the Dublin, Cork, and Belfast schools have an opportunity this year of showing that they do not fear competition with their brethren across the channel. We hope to see them responding to the call made.



# NOTES ON THE ANCIENT ECCLESIASTICAL ARCHITECTURE OF IRELAND.

BY RICHARD R. BRASH, ARCHITECT, M.R.I.A.,  
F.S.A., SCOT.

## TRADITIONARY LEGENDS OF THE GOBAN SAOR.

MANY curious legends are extant among the peasantry respecting this personage; he is represented as a man of great sagacity and forethought, of wonderful resources in cases of emergency, and an almost universal craftsman. The following characteristic legend is current in the County Cork; I give it in the native *patois* :—

"The Goban Saor was a wonderful man; he could build a caher, a bridge, a round tower, or a castle, in the grandest style; he could forge a shield or a helmet, and make the finest timpered swords and spears of any man living; nothing was beyant him. He lived at Rath-Gobbin, in the ould castle there—that is, it was waunst a castle, but 'tis nothin' now but a few relics of walls. You will see it not far from the road on your left-hand side as you go up to Watergrass Hill; 'tis a lone and dreary place enough now, but, believe me, it was warm and comfortable when the Goban kept it, with lashins of eatin' an' drinkin', and no poor sowl ever turned from his gate either cowl'd or hungry; and sure why wouldn't he? when he had all the work of the country, far and near, and no one thought a job was well done unless the Goban had a hand in it. He had one son—a fine strapping comely fellow he was; at dancin' or wrastlin' or hurlin' he would beat the whole side of the country, and no man in the forge could handle a sledge with him.

"Now it happened that the ould woman tuck sick and died, and the Goban was greatly put about for the loss of his faithful *vanithee* (woman of the house); for who was to look after the milk-maids and the dairy-women, to see that the cows were properly milked, and the keelers scoured, and the milk set, and the butter churned, all in due time and season; then wasn't there the meals to be got ready for the journeymen and the 'prentice boys, and the farm labourers and servant girls: believe me, the housekeeping was no joke at Rath-Gobbin. So says he to his son, one evenin' when they were havin' their smoke after supper, 'My boy,' says he, 'we are badly off in regard to the housekeeping, everyone pullin' and haulin' and all sorts of waste and idleness goin' ou; and, as I'll never put any woman in your mother's place, I'd wish you to look out for some clean-handed dacently-reared girl, as it is now high time for you to be married. To-morrow will be the fair of Lisgoold, so be up early in the mornin', as I have something for you to sell, and who knows but you may meet your luck.'

"Darra, to be sure, was up at the break o' day, dressed in his Sunday shute, and, after an early bruckwhist, his father handed him a fine sheep-skin, which he tould him he was to sell at the fair, and that he was to bring home *the skin and the price of it*. Darra thought this would be a hard bargain to drive; but, as he was an obedient son, and never contradicted his father in any thing, he promised to do his best, and off he started for the fair, which was a good seven miles by the road—none of your short, beggarly English miles, but fine long dacent Irish ones. In due course he arrived at the fair. To make a long story short, he spent the whole day trampin' up and down, offerin' his sheep-skin to every *colleen* he came across; but they all laughed in his face, and you may be sure had many a joke at the handsome *omadhaun* (simpleton). Evenin' came on, and, tired and weary, he turned his face for home, wonderin' why his father had sent him on such a fool's errand. When he came to the skirt of the fair, who should he overtake but a comely bright-eyed girl. 'God save you, young woman,' says Darra. 'Save you kindly, young man,' says she. 'Would you buy a fine sheep-skin?' says Darra. 'What

do you ask for it?' says she. '*The skin and the price of it*,' says Darra. 'I'll take it at your offer,' says Mave (for that was the young woman's name), 'and come with me to my father's house—it's only a short way off the road—and we'll finish the bargain.'

"They soon came to her house, and in they went. She took down a fine sharp shears from the dresser, and clipped off the wool as neat as tuppence; then, weighin' it in the scales, she handed him the value of the wool, and the skin. He looked at her with all his eyes. 'By Fune Mac Cool's thumb o' knowledge,' says he, 'but you're a sinsiible girl, and my father was no fool after all when he sent me on this journey.'

"Darra faced home with flyin' colours, and you may be sure he did not pull foot until he came to Rath-Gobbin. 'I see,' says the ould man, 'that you brought home *the skin and the price of it*; but come, you look tired and hungry; sit down, and after supper you can tell us your adventures.' So after their meal was over Darra began and related all that happened for the day, and of the clever *colleen* who bought the wool off the sheep-skin. 'My boy,' says the Goban, slappin' his thigh, 'that's the girl for my money; so to-morrow take the best horse in the stable, put on your Sunday shute, and here's a purse of goold for expinses, and be off and marry the girl, for I am longing to see my daughter-in-law by my fireside.' Darra, you may be sure, was nothing loth, for he had fallen over head and ears in love with Mave; so off he went. You may be certain the coortin' didn't take long; and, as the ould couple were proud to have a daughter of their's married to a son of the famous Goban, the wedding took place, and Darra brought home his lovely bride to Rath-Gobbin, where she was made welcome by her father-in-law, who gave up to her charge the castle and the dairy, and all in the place that ought to be a woman's care. She was a rock o' sinse and good temper—so much so that the Goban himself used to consult her upon all occasions.

"Well, bye and bye there comes a coureer from the King of Connaught himself, with a long letter containin' all sorts of compliments and flattery to the Goban, and sayin' that he was goin' to build a grand caher, and a treasure-house to keep his goold and silver and jewels in (for he was mighty rich, and a great nagur), but that he could not allow any one to put a finger to it but the Goban himself, and promisin' him great payment and the best eatin' and drinkin' while the job lasted. Now, he did not like to refuse the king's offer, though he had heard he was no great things; but the soft talk in the letter, and the pride of the Goban in havin' so fine a job to undertake, was too much for him, and he made up his mind that go he would. When Darra heard that his father was goin' such a distance on a job, he insisted on being with him, and, Mave givin' her consent, they prepared for their journey to Connaught; so, havin' made up their wallets and strapped them on the backs of two stout road hacks, they were about mountin', when Mave called Darra, and tould him to take heed to two things she was goin' to say—that is, 'he was to shorten the road,' and 'never to sleep the third night in any house without makin' friends with some female in the establishment.'

"Well, the first day's journey was a long one, no less than to Brugh-ree, where the King of Munster had a royal palace; it was a great place in thim days, not the poor strugglin' village it is now. Sure you can still see the great forts and moats that formed a part of the fortifications. Well, as I was sayin', they jogged along the road—a long and weary one, not like the fine level, smooth roads of our days, but up hill and down dale, rough and stony. '*I wish I could shorten the road*,' says Darra. 'What's that?' says Goban. 'Mave tould me to shorten the road,' says he. 'Oh! that's easy enough,' says the Goban; 'begin and tell us a story, and if that won't shorten the road, I don't know what will.'

"In due course, at last, they came to the King of Connaught's palace at Croghaun, and sure that was the wonderful place; such raths, and forts, and cashels, and moats, were not to be seen in all Ireland—it beat Tara all to smithereens. The Goban and his son made their way to the king's dun, who was mighty glad to see them both; he ordered the nags to be taken good care of, and invited them to step in and have a drink after their journey, while their supper was gettin' ready. To make a long story short, they soon got to work, and it wasn't long before the walls of the caher began to rise up like magic. The Goban invinted all sorts of quare machines to raise the great stones on to their places. Didn't he astonish the Firlbolgs, and shew them what a Munster Milesiau could do! But this was nothing to the treasure-house that he built inside the caher, all underground; it was round and like a big bee-hive, the stones all beautifully cut and joined together, the one in the other, so that you could not take out one without bringin' down the whole building.

"But I must go back in my story to tell you that the pair hadn't been long at the court of Connaught when Darra noticed a purty fair-haired blue-eyed *colleen* that used to be waitin'-maid to the queen, and she herself a chief's daughter; and she used to be throwin' sheep's eyes at the young man whenever she got a chance. So Darra up and tould his father, and asked his advice. 'Don't you remimber,' says he, 'that Mave tould you never to stop the third night in any house without making friends of some faymale in it. I'd advise you to make up to her,' says he, 'for we're strangers here, and we may want a friend.' Darra took his father's advice, and 'twas well for thim both he did, for, when the king saw the fine caher buildin', and the treasure-house, and that there wasn't the likes of it in all the world, he made up his mind that the Goban should never build another like it, and that he and his son should never carry away with thim the secret of his treasure-house; so that night he tould the queen, when they were both goin' to bed, what his notions were, and that he intinded, as soon as the job was compleate, to put the Goban and his son to death. Now, who should be outside the door but the waitin' maid; and she, hearin' Darra's name mintoned, in a low voice, claps her ear to the kay-hole, as many a curious sarvint has done before, and sure enough she heard the whole plot against the lives of her sweetheart and his father; so the next day she watched her opportunity, and gave Darra the hard-word of what the king intinded to do to him and the old man when the job was finished. You may be sure he lost no time in tellin' him of the dirty thrick that was goin' to be played on them. 'I suspected so much,' says the Goban; 'but never mind,' says he, 'maybe we'll be even with the ould tyrant yet.' So bye and bye he goes to the king, and says he, 'Your majesty, I'm ashamed to say I left one of my tools behind me, without which I cannot close in the arch of your treasure-house; so I will want to go home and bring it with me, in order that I can finish the job in a mechanical manner.' 'Oh!' says the king. 'I couldn't hear of it at all,' says he; 'maybe you'd never come back again, or be killed on the road, and sure I'd never get my house finished,' says he. 'Well,' answers the Goban, 'there's some reason in that, and I suppose you have no objection to let my son go for it.' 'Oh! I could never think of that either,' says he; 'out of this neither of you shall stir until my house is finished.' 'Very well, your majesty,' says the Goban; 'there's a charm in the tool, and my wife will not give it to any bnt meself, or one of royal blood who'll have the pass-word from me,' says he. 'Well,' says the king, 'tis a hard case; but I suppose I must send my own son for it.' 'Just as your majesty pleases,' says the Goban. Well, the ould tyrant called his son, and ordered him to take his foster-brother with him, and go off to Munster for the Goban's tool, in order that his work might be compleated as soon as



possible. The Goban gave him full instructions for his journey, and also the pass-word, which was *cur-an-agh-an-cuim*.

"The prince and his companion set off on their journey, and it was not long until they reached Rath-Gobbin, where they delivered their message to its mistress. She immediately suspected something was wrong, and, ponderin' over the words brought to her by the young prince, she made up her mind that the lives of her father-in-law and husband were in danger, for there was no such instrument in the castle as had been sent for. She therefore put a good face on the matter, ordered refreshments to be laid before them, and their beds to be got ready. In the mornin' she was up at the break o' day, and, callin' six of the workmen, she went up to the sleepin'-room and ordered them to bind the young prince hand and foot, and to put him into the deepest dungeon of the castle; and then, turnin' to the foster-brother, 'Now,' says she, 'be off as fast as ever you can. Go to the King of Connaught, and tell him that I have his son in sure keepin'; and that, if the Goban and Darra are not back in Rath-Gobbin safe and sound before the next full moon, I'll hang him on the highest battlement of the castle.' You may be sure the foster-brother didn't lave the grass grow under his horse's feet; he tuck all the short cuts back that he could think of, until he got to Croghan, where he made straight for the king's palace, and tould his message.

"Whin the ould tyrant found that he was circumvented, he stormed and swore by sun, wind, earth, and water that he would take the heads off Goban and Darra, and march his army into Munster to rescue his son. Howsomever, the queen, whin she heard the fix her only darlin' boy was in, set up such a pillaloo that she brought all the lords and chiefs about the place, who, whin they heard how matters stood, up and tould the king they wouldn't stand any more of his nonsense; that he should send back the Goban and Darra, so that their young prince might come back safe and sound; and that, if he didn't agree to that, they would never lift sword or spear again in his service. Well, by coorse, he had to give in; so he called the Goban, and, having paid him his wages, he sent seven picked men with him and Darra, to bring back his son in safety.

"In the meantime, Mave, as soon as the foster-brother had started for Connaught, wint down to the dungeon, and had the chains taken off the young prince. She gave him the best the castle could afford, and played chess and dominoes with him, so that the time might not pass heavy on his hands. At night there was a strong pathrol about the castle, so that he had no chance of escapin', if he was ever so well inclined; but the truth was that he had no notion of it. He was an honourable young fellow, and had pledged his princely word that he would not make the attempt. He liked his quarters, and was anxious to see the Goban and his son back in their own country, for he wasn't up to the thrick his father was goin' to play on them.

"In due course the party arrived from Connaught. My dear, such huggin' and kissin' as they had! you'd think they'd never leave off. Whin they were tired at last, Mave remembered they were after a long journey, so she and the maids set to work, and bye and bye there was a beautiful dinner smokin' on the table; there was salmon from the Bride, and venison from the glens of Lemlara, boars' flesh from the woods of Kildinan, and no end of barn-door fowl, young and fat; the methers of beer and horns of mead never stood still. Ould Donough, the harper, was perched on a high stool behind the master, and played the 'Welcome Back to Munster.' You may be sure they made a night of it.

"The Goban would have kept the prince and his men for a month of Sundays if they'd have stopped, promisin' them the finest huntin' and fishin', goalin', and all sorts of divarshuns; but he was in a hurry to get back, for fear his mother, of whom he was mighty fond, would be onaisy about him.

So off he started for home. The Goban made thim all presents, like a king: to the prince he gave a fine timpered sword with a goulden hilt, a shield with knobs of carved silver, and a spear that would go through the strongest armour. You may be sure they all wint home well pleased with their treatment. And so ends my story of the Goban Saor."

There are some curious traditions of this personage connected with an island in the Bog of Allen, near Killenale, County Tipperary; it is a green elevated spot in the heart of the bog, and difficult of access, except in summer, as I found by experience. It is named Deire-na-B'planne, *i.e.*, the End of the Plank, I presume from the fact of a planked road having formerly led through the bog into the island, which was in ancient times a cemetery, but is now disused on account of its difficult access.

On this lonely spot is a small but ancient church, and a number of grave-slabs of early mediæval character, five of which are visible and worth examining; probably many more might be found by excavation. Local tradition states that here was the grave of the Goban Saor and his twelve journeymen, who, it is said, were waylaid and killed by twelve robbers, who buried or hid their remains in the bog. The culprits made their way to their victims' house; they were received by his widow as if nothing had happened, though she had been made aware of the murder. Requesting their assistance to open a piece of oak which her husband had been sawing into plank, she slyly withdrew the wedge, and, the heavy planks springing together, caught their hands as in a vice, when the widow—who was a woman of strength and resolution—cut off their heads with an axe. She then caused the remains of her husband and his twelve workmen to be interred in Deire-na-B'planne. The peasantry insist that a grave-slab with two heads carved on it marks the tomb of the Goban and his wife, and the others the resting-places of so many of his men, the rest of the monuments having disappeared.

On the occasion of my visit to this locality, an intelligent peasant, who seemed full of the fame of the great craftsman, related to me the following legend:—

"Whin the ould abbey of Holycross was buildin', one bright summer's mornin', a middle-aged man, poorly clad, came by. His tools were in his wallet over his shoulder, and he seemed tired and foot-sore, from the heat of the day. 'God bless the work,' says he. 'God bless the spokesman,' says the min, who were workin' away like mad. 'I'm on tramp,' says he to the master-mason, 'and maybe you could give me a job for a few days, to help me on my way.' 'What are you able to do?' says the master. 'Wisha not much,' says the traveller. 'Well,' says the boss (who was a concealed sort of fellow), 'you look like it; but I'll give you a trial. We're just goin' to our dinners, and there's a fresh stone there on the banker, and cut me out,' says he, '*a cat with two tails*.' So sayin', he tuck his mallet and gave warnin' for the dinner.

"As soon as their backs were turned, well become the poor tramp but he threw his wallet on the ground, and, takin' out his mallet and chisels, he fell to work like a nigger, and before the dinner-hour was over he had a fine mouser with two tails cut out of the block of stone, so nat'ral that you'd think he was goin' to fly at you. He then bundled up his tools, threw his wallet over his shoulder, and faced for Cashel as fast as he could foot it. He was hardly turned his back whin up came the master and his min, afther their dinners. 'Whirroo!' says he, 'what's this?' By the piper,' says he, 'but sure enough here's a *cat with two tails*, and beautifully cut it is, too,' says he. The min all gathered round the banker, and declared 'twas the finest piece of work they ever laid their eyes on. 'Who is he?' says one. 'Who is he?' says another. An ould grey-headed mason who was in the background came forward, and whin he looked at the piece of work he slapped his thigh—'*'twas the Goban*

Saor himself,' says he; 'there isn't mortal man livin' could do it but himself.' 'Boys,' says the master, 'I'm ashamed of meself! Divide yerselves into hands, and take to the four cross-roads, and bring him back whether he will or no; sure he can't be far on his way.' The min started off with good will; they followed the four cross-roads, and searched the country all round, but sorra a tale or tidin's of the Goban did they ever get from that day to this, so they had nothin' to do but to put up *the cat with two tails* in the b'ildin', in remembrance of the Goban; sure if you go to Holycross you'll see it up in the wall of the church to this day."

The above are fair samples of the very numerous legends characteristic of this personage that are to be found among the peasantry in all parts of Ireland, more particularly in the south and west, but which are now fast disappearing. This fact will, perhaps, plead my excuse for placing them on record in a work of this character. A different version of the first legend will be found in Mr. Patrick Kennedy's interesting volume, *Fictions of the Irish Celts*. Taking the entire subject into consideration, I think it probable that the various myths of the Goban Saor had their origin in an actual personage of that name, who flourished far back in the pre-historic period, whose acts and attributes have been kept alive through tradition, travelling down to our own times.

#### TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville*.

CERTAIN lowland countries are, it is said, macadamised with good intentions; and it is exceedingly probable that if Diogenes had relinquished his interesting search for the cranium of Alexander Sen, assumed the vocation of a good-intention antiquarian, and visited the sultry climes before mentioned, he might have secured some rare specimens sent thither by the good town of Kilkenny.

Now be it known that the houses in that town are roofed with the "unleavened" of Shrovetide, the streets being paved with marble, and the coal (Kilkenny coal, sir!) used to burn without smoke. At present, however, the coal won't burn without smoke, owing, probably, to the fact that it is permitted to follow its monastic occupation of slumbering in the bowels of the earth.

An enterprising landed proprietor thought some time ago to turn the vast mineral resources of Kilkenny to account, but another party, who happened to have his proverbial finger in the equally proverbial pie, determined to oppose the scheme, so they had it out in the usual Kilkenny way—yea, even unto the bitter Kilkenny end. While those two worthies—whose hands, with all due respect to Dr. Watts, appeared to have been specially constructed for the purpose of damaging each other's visual vision—were, as before chronicled, having it out, an English company stepped in and took possession, and their engineer has announced that an exceedingly rich vein of coal runs at the depth of seventy yards from the surface. Shortly after this report got wind, a Newcastle pitman told me, "he thowth Newcastle was sat on."

Speculation has been on tiptoe for some time as to the discovery of some real substitute for the "black diamond." One gentleman—a poor but honest German miner—announced that puddle and coal-dust mixed, placed coal in 32° Fah. Peat companies sprang up, and, I may add, sprang down again rather lively, and, on reflection, found financial elasticity to be an error. However, this class of experimentalists—if the new mine has half the resources attributed to it—will find that their occupation, like that of Desdomona's nigger lover, is gone!

Minute wedges of wood have been inserted between the paving-stones in Les Boulevard Sackville, the wedges being termed "Oriental Plane Trees." I am incapable of speaking upon



the oriental portion—can vouch they're very plain trees, though. A farming contemporary of yours says "they've nothing now to do but grow," and admonishes them to attend to the growing part. Now, inasmuch as Dean Swift's servant made this very remark some time ago, I should advise your contemporary to give its undivided attention to top-dressing and the like, and allow the bones of the late lamented J. Miller and Co. to rest in peace.

A beautiful specimen of the photographic-studio-attic style of architecture has lately been erected at the head of Grafton-street, and a photograph thereof was forwarded to Mr. Ruskin. I cannot otherwise account for the violent spasms with which that learned gentleman has lately been seized.

OLYMPUS.

### MUNICIPAL ECONOMY (?) !!

ALMOST every month there are motions brought up in our Town Council either to increase the salaries of officers, or to vote pensions to others who are well able to continue in office longer, but who are voted pleasantly out that other needy hangers-on may be moved as pleasantly in. The labourer, we have always contended, is worthy of his hire, and to indispensable officers in our Corporation we admit fair but not exorbitant sums should be paid—salaries commensurate with their duties. According to the last balance-sheet of the Borough Fund, the salaries, "apportioned according to scale adopted by the Town Council," show how the following officers are paid for their duties:—

|                                |      |
|--------------------------------|------|
| The City Treasurer - - -       | £925 |
| The City Accountant - - -      | 350  |
| The City Engineer - - -        | 600  |
| The Law Agent - - -            | 400  |
| The Town Clerk - - -           | 500  |
| The Assistant Town Clerk - - - | 300  |

Our readers may add up these sums and find the total. It is not difficult, because it may be seen at a glance what officers in the above list might have their salaries reduced. Why should such a heavy sum be paid for the ornamental office of Treasurer, which might be altogether dispensed with? The sum of £925 yearly would pay for some urgent or useful sanitary work. The working officials, let it be understood, receive a very handsome sum over what appears in the above list—sums in the shape of hereditary fees, extras, and incidental allowances, a portion of which will be found debited to sundries in the Borough balance-sheet. Here is another list of items worthy of perusal:—

|   |       |    |    |
|---|-------|----|----|
| The Lord Mayor - - -                              | £2000 | 0  | 0  |
| The Recorder - - -                                | 360   | 0  | 0  |
| The Sword Bearer - - -                            | 250   | 0  | 0  |
| A late City Marshal, from August to January - - - | 114   | 15 | 11 |
| A City Marshal for a similar period - - -         | 187   | 6  | 7  |
| High Constable - - -                              | 100   | 0  | 0  |
| Mace Bearer - - -                                 | 150   | 0  | 0  |
| Secretary to No. 2 Committee - - -                | 100   | 0  | 0  |
| Assistant City Accountant - - -                   | 150   | 0  | 0  |
| Accountant's Assistant - - -                      | 100   | 0  | 0  |
| Loan to do. - - -                                 | 15    | 0  | 0  |
| Town Clerk's Assistant for four months - - -      | 43    | 6  | 8  |
| Eight months do. - - -                            | 93    | 6  | 8  |

There are some nice little sums in the above for divided labour. Now if the Borough of Dublin balance-sheet were to go before a Parliamentary committee, it would give rise to some pertinent queries. It is strange that the Government Auditor did not take cognizance of such offices in duplicate as Town Clerk's Assistant, and Assistant Town Clerk, and Assistant Accountant, and Accountant's Assistant!

Verily there are nice divisions of labour in the Corporation of Dublin for providing for friends and relatives, under the pretence of relieving the heavy labour of responsible officers who are already well paid for the little work they do. Were we to go over the list of sundries, extras, and incidental expenses, we could produce a number of payments that should never have been made,

or that have no real connection with the business of the Corporation. For instance, why should a platform be erected in the Round Hall to receive a deputation of a political body? Why should the ratepayers be taxed for the erection of structures connected with political displays? We hope the present Lord Mayor will, during his year of office, put his foot on all displays that would turn the Corporation Hall into a political arena.

The list of sundries in the Borough Account we look upon as a very discreditable affair indeed. It is neither a straightforward, manly, nor honest way of furnishing the public with a statement of expenditure. It must give rise to a well-grounded suspicion that a large amount of money is extravagantly wasted by being paid away for work not needed, or articles not required. With Treasurers, Accountants, Engineers, Town Clerks, and other Officers' Assistant Assistants, and second Assistants, and other constant and temporary subalterns, it is no wonder that there is no money for sanitary work. It is clear, also, that the loans that are now being asked for will not be applied, save in a very infinitesimal way, for sanitary improvement, but will be applied to make up a deficit in other departments of the Corporation. Those that run may read, and those who are not actually blind may see and understand how the public money is constantly wasted.

### CIVIC LYRICS.—No. LVI.

#### HOW DOES THE MONEY GO?

How does the money go?

Ratepayers ask.

Is it for office pay,

Is it for task?

Is it for lawyers' costs,

Parliament bills,

Or paying the duty

On Aldermen's wills?

How does the money go?

Citizens wink.

Is it for turtle soup,

Is it for drink?

Town Clerk and Engineer

There on the staff;—

Put them the query—

They'll only laugh.

How does the money go?

Everyone stares;

But there's somebody knows,

And somebody cares.

Is it for deputies

Sent o'er the sea,

To play at St. Stephen's

Fiddle-de-dee?

How does the money go?

Cheques are still drawn;

Chairmen sit cosily;

Treasurers yawn;

Auditors come, we know,

Sums to surcharge,

Marking the Balance-Sheet

Debtors at large!

How does the money go?

Say, No. 1!

What's 2 and 3 spending

Our money upon?

Do Committees labour

To bring forth a mouse,

Whose natural parent

Is the whole House?

CIVIS.

### THE ROYAL DUBLIN SOCIETY SCHOOL OF ART.

THE annual distribution of prizes to the students took place on Friday, the 20th ult., in the theatre of the Society House, Kildare-street; Earl Spencer, the out-going Lord Lieutenant, presiding, and distributing the prizes. There was a large and influential gathering.

Mr. G. Johnstone Stoney, LL.D., one of the hon. secretaries, in referring to the success of the School, gave the results of a comparison between it and the schools in connection with Glasgow, Edinburgh, Birmingham, and Manchester, from which it

appeared that in the highest grade in Glasgow school the highest prizes had been awarded as follows:—In Glasgow school, to 1 student in 53; in Birmingham, to 1 in 26; in Edinburgh, to 1 in 14; in Manchester, to 1 in 17; and in Dublin, to 1 in every 8. A similar result applied to the other grades, and showed the favourable comparison the Dublin school could bear with the other large schools in connection with South Kensington. This success had not been obtained under favourable circumstances, for there were many respects in which improvements were required, and which he hoped soon to see carried out.

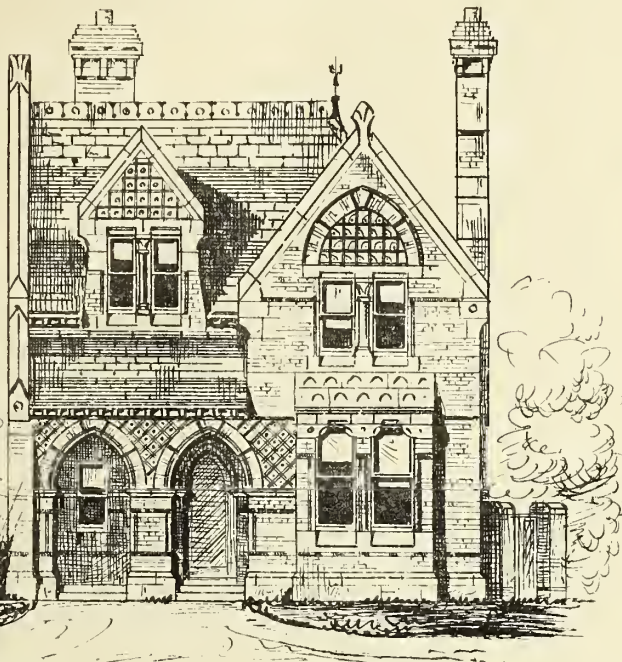
Colonel Adamson submitted the report of the Master of the School of Art, which stated that the works in drawing, painting, modelling, &c., representing nearly every stage of art instruction, were forwarded to London in April last. The total number of such studies amounted to 893, as compared with 581 similar works forwarded in 1872. During the past year the number of students attending the school has been 452, of which number 222 were males, and 230 females. The total number of artisan students amounted to 274, of which number 215 were males, and 59 females. The prizes were then delivered by his Excellency to the successful students, as follows:—

E. M. Arnold, 1st prize in third grade awards. I. Benson, 2nd silver medal. C. Barnes, 2nd silver medal, bronze medal. M. A. Bredin, certificate, 1st prize in third grade awards. I. L. Bucknall, 2nd bronze medal, Queen's prize, and 1st prize in third grade awards. S. P. Ball, two 1st bronze medals and a certificate. B. Birch, 1st bronze medal and 1st prize in third grade awards. I. Bergin, 1st bronze medal. D. Bradley, 2nd prize in third grade awards. E. N. Byng, 2nd prize in third grade awards. M. Cochrane, 1st bronze medal and 2nd prize in third grade awards. I. Campbell, 1st prize in third grade awards. H. Everth, Queen's prize. A. Evans, prize in second grade awards. M. Elliott, 2nd bronze medal. Z. Elliott, certificate in second grade awards. A. Ffolliott, 2nd bronze medal, 1st prize in third grade awards. H. Hanlon, certificate. H. M. Hutton, 2nd bronze medal. E. E. Irwin, special certificate, 1st prize in third grade awards. M. Irwin, silver medal, 1st prize in third grade awards. F. L. Jordan, two 1st bronze medals, silver medal, 1st prize in third grade awards. E. Kerr, certificate, 1st prize in third grade awards. A. Kellet, 1st bronze medal. Miss Lambert, 1st bronze medal. N. Nee, 1st silver medal, 1st prize in third grade awards. L. Langan, 2nd silver medal. M. Montgomery, certificate, prize in second grade awards. F. Montgomery, certificate. M. Nanning, 1st bronze medal and certificate. I. Maffatt, special certificate. M. Martin, 2nd silver medal and certificate, 1st prize in third grade awards. S. Mullin, certificate. C. Mitchinson, 1st silver medal, 1st prize in third grade awards. M. A. M'Mee, special silver medal and certificate and 1st prize in third grade awards. M. M'Sorley, certificate, and 1st prize in third grade awards. H. M'Donnell, 2nd bronze medal. M. A. Magee (Mrs. Grant), 1st prize in third grade awards. E. Naylor, Queen's prize, and 1st prize in third grade awards. K. O'Brien, special certificate. L. M. M. O'Cleary, 1st and 2nd bronze medals, and 1st prize in third grade awards. M. Oliver, 1st bronze medal. O. E. Poole, 1st and 2nd silver medals, and first prize in third grade awards. A. Palmer, 2nd prize in third grade awards. E. Robie, certificate. L. Samuels, 2nd bronze medal. L. M. Sands, 2nd bronze medal. G. G. Peters Smith, 2nd prize in third grade prizes. P. K. Symes, certificate in second grade prizes. H. Thornhill, certificate and special certificate; bronze medal and 1st prize in third grade prizes. M. D. Webb, 1st silver medal and special certificate. Florence Walker, 2nd bronze medal. Jeanie Walker, 1st bronze medal and certificate, and 2nd prize in third grade prizes. E. Wallace, 1st prize in third grade prizes. M. Weld, 1st prize in third grade prizes. M. H. G. Warren, prize and certificate in second grade prizes. Francis White, prize in second grade prize. E. R. Byrne, special certificate. E. Bestick, special certificate. J. T. Boyle, special certificate and 1st prize in third grade prizes. J. W. Boucher, certificate in second grade prizes. G. Carolin, certificate. J. Campbell, 1st prize in third grade prizes. John Cox, prize in second grade prizes. L. Corbett, 1st prize in third grade prizes. Thomas Doherty, certificate in second grade prizes. B. Fitzgerald, prize in second grade prizes. E. Gibson, 1st bronze and silver medal. J. Hanrahan, 1st prize in third grade prizes. J. A. Hull, prize in second grade

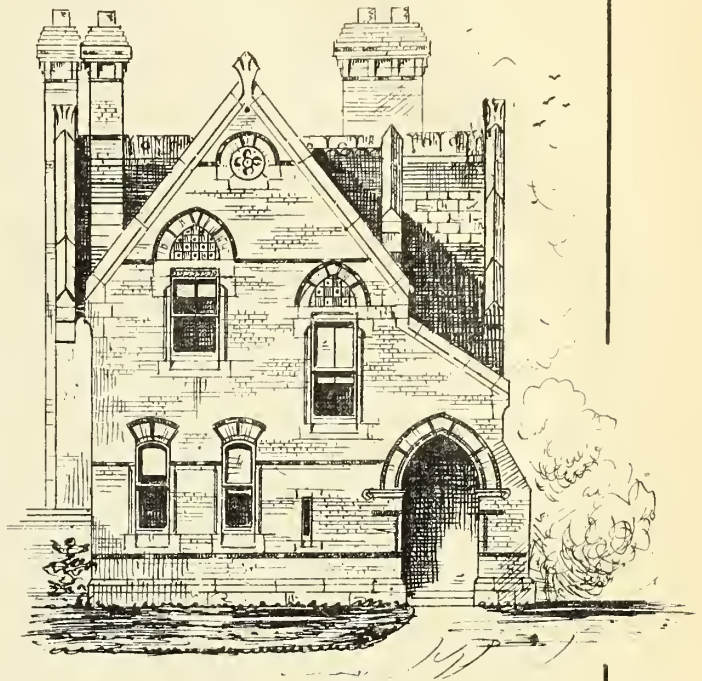


# Sketch for a Gate-Lodge

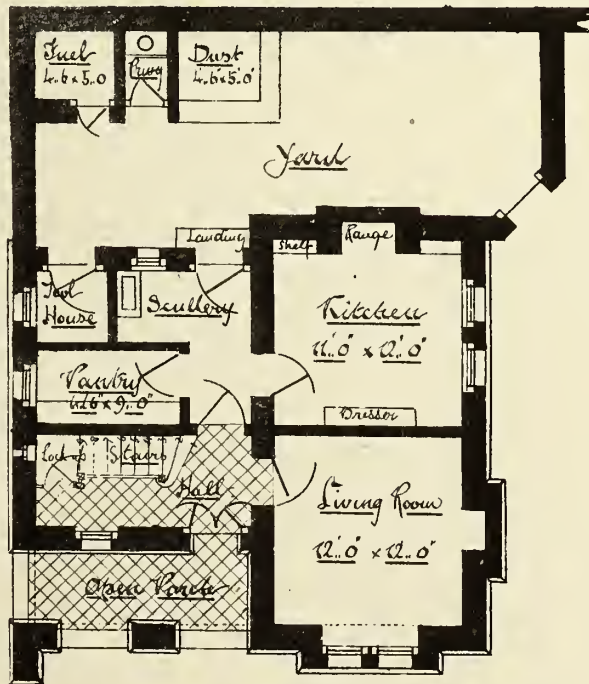
by John S. Robinson, 193 St. Brunswick St. Dublin



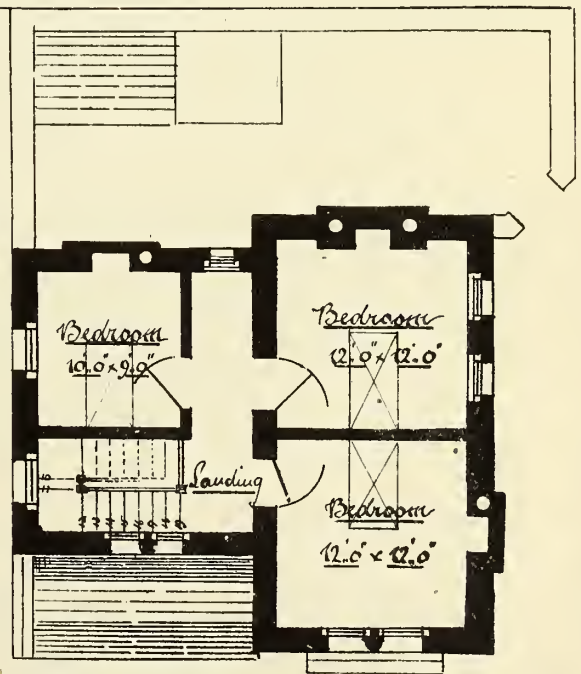
FRONT ELEVATION



FLANK ELEVATION



GROUND-PLAN



BEDROOM-PLAN

Scale of feet









prizes. J. Kavanagh, 1st bronze medal and certificate, 1st prize in third grade prizes, and prize in second grade prizes. G. B. Lefanu, special certificate. J. T. Miles, 1st bronze medal and 1st prize third grade prizes. H. S. Mercer, Queen's prize. W. H. Murray, 1st prize in third grade prizes. M. T. H. Moran, prize and certificate in second grade prizes. R. D. O'Brien, prize and certificate in second grade prizes. W. T. Parks, prize in second grade prizes. R. Catterson Smith, 2nd silver medal, and 1st prize third grade prizes. J. H. Tighe, 2nd bronze medal. R. Walsh, 1st prize third grade prizes. G. Yeates, prize and certificate in second grade prizes.

Mr. G. W. Maunsell proposed a vote of thanks to the judges, adding his testimony to the interest which Earl Spencer had manifested for the School.

Sir George Hodson returned thanks on behalf of himself and the judges, and confirmed and supplemented the remarks of the previous speakers.

His Excellency, in the course of his address, said:—

"I must congratulate the Royal Dublin Society, as I did on the first occasion I addressed it, on the work which it does in the furtherance of art in this country. The work which the Royal Dublin Society takes in hand is very wide and various, but I am sure that it does no more useful work than that of managing schools of art in Ireland. It is a country where art is much appreciated, and where the great genius of its people readily took to it, and, therefore, I believe that schools of art have no better field than in this land. We have heard to-night of the success which has attended the School of Art of the Royal Dublin Society. Not only are the reports of the eminent men who come over here to judge highly satisfactory as to the works of the pupils that came before them, but—and that is what I think we ought to congratulate the society chiefly upon—we find that the pupils have been eminently successful in the international competition, and have carried off more prizes than those of any other schools in the kingdom. When I return shortly to my own native county, I shall be able to congratulate them, and give them great encouragement from the fact that Mr. Lyne, who has so ably been the teacher of this school, comes from a village near my residence. I observe that the teaching of the school is very varied, and includes not only high art in landscape and in drawing of live models, but also modelling and statuary, and designs for manufactures of different kinds. This, I think, is very important, for we all know how difficult it is in education to discover the mind of each pupil. Many a person would have risen to more eminence if his teacher had been able to discover the true bent of his intellect and genius. This is one of the great difficulties of all education—the development of the character of each of those who receive instruction. This is particularly the case in art; and, therefore, I think, the varied subjects which this school teaches tend greatly to develop the genius and intellect of its pupils. Now, I think, if we look back at high art in ancient days, we will find a great difference from the present. In old days we would see one great master with a school of artists following his particular style of treatment. In the fifteenth century we find almost all the great works of art treating of religious subjects. Now, I think, we see a great difference. I don't know whether it is that we decorate, and do honour to our God in our churches in other ways than in painting, or whether artists of the present day are timid in trying to follow the footsteps of the great men who painted in former days; but we see on the walls of our picture galleries every kind and description of art. We find the independence and originality of English and Irish thought breaking out in all directions; and, if we lose somewhat of symmetry from one particular school, we gain much in the originality and thought. This is especially shown in the works of the great man who died during the past year—Sir E. Landseer. In former days Hundercooter, Wouvermans, and Snyder delineated with great force, great grace, and great vigour animal life; but where can you find the wit, humour, or touch of feeling which appear in the pictures of Landseer? Now, this school does much towards educating and bringing out pupils in the very highest style of art. I was very much gratified to hear from one of the speakers that the son of a distinguished artist, well known in Dublin, has already commenced his career as a sculptor in the studio of one of the most successful sculptors in London—Mr. Foley, who is such an honour to Ireland. I trust he will follow in the footsteps of that great artist, and bring not only honour to his own name and that of his father, but also to this society, whose pupil he is. Now I will allude to a topic which has been referred to by

more than one of the speakers who have preceded me. On former occasions I have spoken strongly in favour of having a central museum of ornamental art in Dublin. I must confess to you I feel rather mortified and disappointed that on this, which is perhaps—and I will not say perhaps, but certainly—the last occasion I will appear before you as the representative of the Queen, I am obliged to say that I have not been able to further an object which, I have said, was a great means towards the furtherance of art in this country. Last year I referred to this matter, and last year there was a considerable difficulty in bringing on the subject, for the House of Commons had shown themselves more than ordinarily jealous of the expenditure on the Civil Service; and while the committee was sitting upon that they did not think it was a very opportune moment to press for a grant for the purpose of a school of ornamental art in Dublin. There were other difficulties, arising from the number of societies which had museums in Dublin; but I have always felt sanguine that with a fair field we should be able to obtain for you this advantage. I, therefore, much regret that neither Lord Hartington, who was equally anxious on the subject, nor I have succeeded in our desire. I sincerely trust that our successors may be more fortunate. I wish them every success on this matter, and I only envy them their better fortune if they are able to establish in this city a museum of ornamental art, which I deem of such importance to all lovers and students of art."

Knowing, as we do, the state of art matters in Dublin for many years, and remembering the position of the Dublin Society's Art Schools upwards of thirty years ago, and even fifteen years ago, we can bear evidence to the great improvement that has taken place in its management for the last few years, and the high excellence of the teaching imparted.

We trust that the advantages of the Dublin School of Art will be more largely availed of by the operative classes of this city. Drawing is indispensable as a qualification for the artisan who desires to be technically educated. Had Schools of Art been made general over the British Islands a century ago in the interests of trade and manufactures, there is no branch of skilled industry here—either in design or execution—but would be able to compete, and even rival, the best efforts on the continent. In general art matters we have been behind our continental neighbours, but, though admitting this on the part of Ireland, we put in a claim—that even in the last century her capital creditably sustained its reputation in the field of art.

#### A SCENE IN THE MALL.

As Tom (a famed artist well known in the city) Was walking, last week, on our tree-planted Mall, He sharpened his pencil, and ogling with pity, He sketched the profile of the great Admiral. "Just give me a screw-jack, and engine, and roller," Said he, "and I'll move both the statue and shaft." "Give ye the devil," said some by-standing droller. "I've cut him already," quoth Tom as he laughed.

R. H. A.

#### THE BELFAST ARCHITECTURAL ASSOCIATION.

A MEETING of the members of the above association took place on Monday evening, 16th ult., Robert Young, Esq., C.E., in the chair. A paper was read by Mr. John Boyd, architect, on "The Effects of Water, Wind, and Frost on Public Buildings." The first portion of the paper referred principally to damp, arising from different sources—1, from below, or foundations; 2, from above, or the roof; 3, from the sides, or walls; and 4, from incidental sources—in which the varied causes were pointed out, and remedies suggested. With regard to the effects of wind on buildings, Mr. Boyd instanced a number of recent cases where sad accidents to human life and destruction to property took place from various erections falling during a gale. He also gave examples as to how to calculate the effects of hurricanes on buildings, and alluded to the Eddystone Lighthouse as an example of stability, it having resisted the severe gales of the English Channel for nearly 120 years. In the third case, the

effects of frost on stone were shown to be greatest on the north and north-east sides of buildings, and on the underside and beneath cornices and projections, from the fact of the sun not shining on these so much as on the south and west. After the frost has commenced the disintegrating process, the various acids in the atmosphere of London and our large manufacturing towns come to its assistance, and the work of dissolution progresses. Allusion was then made to the decay of the stone in the Houses of Parliament, and to the several experiments that are now in operation on that building to arrest decay, the author expressing a hope that in this national experiment some one or more would be found effectual. After some valuable remarks by the chairman and several of the members, the meeting separated.

#### CORRESPONDENCE.

##### ASSISTANT COUNTY SURVEYORS, AND THEIR PAY.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—There is in all probability some chance, now that we are on the eve of a more Liberal Government than the last, that the Assistant Surveyors will receive some consideration at the hands of the much-abused Conservatives.

I would respectfully quote one or two sentences from the lips of a member of the association, Mr. Chappell; also from our late Chief Secretary, Lord Hartington, which may not be out of place.

The former said, they (the Assistant Surveyors) submitted that their salaries, in order that they should do what is fair to themselves and their families, and perform their duties to the satisfaction of the public, should not be less than £150 per annum.

Lord Hartington said he would take the opportunity of consulting some gentlemen acquainted with the subject brought under his notice, and would carefully consider how far the suggestions made could be attended to. Thus, Sir, the affair ended, leaving us out in the cold. It is to be hoped our present Chief Secretary will act with more humanity and liberality towards the "despised and rejected" Assistant Surveyors of Ireland, who, if all fails, should strike *en masse*, or join the Home Rulers!

Excuse me thus introducing politics into your practical and Irish journal.—Yours, with esteem, C.E.

Goresbridge, Co. Kilkenny,  
28th February, 1874.

#### NOTES OF WORKS.

The following works are amongst those that have been just completed, or are being executed, from designs by and under the superintendence of Mr. J. L. Robinson, A.R.I.A.I., architect and C.E.:—

Extensive alterations and additions have been made to premises, Main-street, Bray, County Wicklow, for Fred. M'Crea, Esq.

A new auction-room, 40, Lower Ormond-quay, named the Ormond Sale Rooms, has been just finished. This is the largest auction-room in Dublin, being 30ft. by 80ft. long, with framed roof, stained and varnished, with continuous skylight. The works have been carried out by Mr. John Boyce.

Extensive alterations and additions have been made to Belvue, Cross-avenue, Blackrock, for Thomas Brangan, Esq. The outlay has exceeded £1,000. Mr. C. Stapleton, builder.

A large addition has been erected to the Female National Schools, Baggot-street. Mr. Joseph Kelly, builder.

Considerable alterations and improvements are being made to 26 North Great George's-street, for Mrs. Clarke. Mr. P. Monks, builder.

Large Poor Schools, built to accommodate 1,000 children, have been recently opened at Weaver's-square. Mr. Joseph Kelly, builder.

Extensive bonded warehouses and rectifying stores have been recently erected at High-street, for C. Dennehy, Esq., T.C., J.P. Further extensive works are at present being carried on at the same place. Mr. Patrick Monks, builder.

An addition is being made to Messrs. Ryan and Son's paper warehouse, Merchants'-quay. Mr. Thomas Judge, builder.

Extensive additions and alterations have been made to the Female Penitents' Retreat, Lower Gloucester-street. Mr. Patrick Monks, builder.



## THE RUIN AND RE-BUILDING OF NATIONS.

[Being Extracts, with Notes, from "An Essay towards Preventing the Ruin of Great Britain," by George Berkeley, Bishop of Cloyne. First printed in London, A.D. MDCCXXI.]

SEVERAL months ago we re-published the well-known "Querist" of George Berkeley, and appended thereto some notes wherever the subject suggested remarks. The "Querist" has a standard value, and the proposals it indicates are as applicable to-day as they were upwards of a century since. We purpose now to give some extracts from another essay of that worthy Irish prelate, pregnant with truths, and showing the deep foresight possessed by the mind of one who was not only a true friend of his country, but a benefactor to the human species over the globe.

"Industry is the natural, sure way to wealth. This is so true that it is impossible an industrious, free people should want the necessaries and comforts of life, or an idle enjoy them, under any form of government. Money is so far useful to the public as it promoteth industry, and credit having the same effect is of the same value with money, but money or credit circulating through a nation from hand to hand without producing labour and industry in the inhabitants, is direct gaming.

"It is not impossible for cunning men to make such plausible schemes as may draw those who are less skilful into their own and the public ruin. But surely there is no man of sense and honesty but must see and own, whether he understands the game or not, that it is an evident folly for any people, instead of prosecuting the old, honest method of industry and frugality, to sit down at a public gaming-table and play off their money one to another."

[The calamities brought upon these islands by the collapse of the South Sea project, the public and licensed lottery systems, and the almost universal addiction to gaming, drinking and blasphemy that characterised society in the last century, to the derision of morality and religion, coupled with idleness and consequent mendicancy of the lower classes, were in the mind of the worthy bishop, and induced him to speak, in more places than one, in strong but justifiable language.]

"The more methods there are in a state for acquiring riches without industry or merit, the less there will be of either in that state; this is as evident as the ruin that attends it. Besides, when money is shifted from hand to hand in such a blind and fortuitous manner, that some men shall, from nothing, in an instant acquire vast estates, without the least desert; while others are as suddenly stript of plentiful fortunes, and left upon the parish, by their own avarice and credulity. What can be hoped for on the one hand, but abandoned luxury and wantonness—or on the other, but extreme madness and despair?

"In short, all projects for growing rich by sudden and extraordinary methods, as they operate violently on the passions of men, and encourage them to despise the slow, moderate gains that are to be made by honest industry, must be ruinous to the public, and even the winners themselves will at length be involved in the public ruin.

"It is an easy matter to contrive projects for the encouragement of industry. I wish it were as easy to put them in practice. *There is no country in Europe where there is so much charity collected for the poor, and none where it is so ill managed.* If the poor-box was fixed as a medium in every parish, taken from a calculation of the last ten years, and raised for seven years, that sum (if the common estimate be not very wrong) frugally laid out on workhouses, would for ever free the nation from the care of providing for the poor, and at the same time considerably improve our manufactures. We might by these means rid our streets of beggars; even the children, the maimed, and the blind might be put in a way of doing something for their livelihood. As for the small number of those who by age or infirmities are utterly incapable of all employ-

ment, they might be maintained by the labour of others, and the public would receive no small advantage from the industry of those who are now so great a burden and expense to it."

[We italicised some words in the above paragraph, for it is equally true at this day as what the bishop has stated in respect to a century and a-half since. The amount of charity given in London alone at present amounts yearly to something enormous, and, we regret to say, a large amount of it is shamefully squandered by those entrusted with its distribution. The system of "voting charities" is pernicious, for the really deserving are those who receive the least. Great frauds are also committed by bogus societies, under the name of charity organizations, and self-elected missionaries or benefactors set machinery in motion to benefit themselves instead of the poor. Fraud is to be found in every direction we turn. In respect to workhouses the bishop is right. They should be made self-supporting wherever the able-bodied occupy them; but it would be far better if only the very young, or aged or incapacitated were admitted. The able-bodied should, undoubtedly, be made to labour in their own and the public service. Workhouse labour should, however, as far as possible, be kept from injuring workmen, and injuring the trader and ratepayer outside, who is heavily taxed for the support of assumed pauperism.]

"The number of people is both means and motives to industry, and should, therefore, be of great use to encourage propagation, by allowing some reward or privilege to those who have a certain number of children, and, on the other hand, enacting that the public shall inherit half the unentailed estates of all who die unmarried, of either sex."

[A tax upon bachelors and old maids would amount to an infringement of the liberty of the subject. There are many obliged to live in a state of single blessedness because they cannot help it. A married man, with a number of children above the average, whom he honestly labours for, and does his utmost to educate and apprentice to useful trades, is a man, certainly, entitled to respect and consideration. All married couples are not blessed with large families, and many poor and well-to-do have none at all. There is certainly an evil, and a growing one, in a state of society where there is an increasing dislike to married life. It leads to a state of things we need not describe. The legitimate increase of population is as necessary to the existence of the world as air and light.]

"There is still room for invention or improvement in most trades [all trades] and manufactures, and it is probable that premiums given on that account to ingenious artists would soon be repaid an hundred-fold to the public. No colour is so much worn in Italy, Spain, or Portugal as black; but our black cloth is neither so lasting nor of so good a dye as the Dutch, which is the reason of their engrossing the profit of that trade. This is so true, that I have known English merchants abroad wear black cloth of Holland themselves, and sell and recommend it as better than that of their own country. It is commonly said the water of Leyden hath a peculiar property of colouring black; but it hath been also said, and passed current, that good glasses may be made nowhere but at Venice, and there only on the island of Murano, which was attributed to some property in the air, and we may, possibly, find other opinions of that sort to be as groundless, should the Legislature think it worth while to propose premiums in the foregoing, or in the like cases of general benefit to the public. But I remember to have seen, seven years ago, a man pointed at in a coffee-house who, they said, had first introduced the right scarlet dye among us, by which the nation in general, as well as many private persons, have been since great gainers, though he himself was a beggar, who, if this be true, deserved an honourable maintenance from the public."

[If George Berkeley were alive at the pre-

sent day he would find that his remarks are still well-timed. Many an artist and inventor in our own memory has been let to perish and die in absolute want, leaving his children chargeable on the parish, from the want of due appreciation on the part of those who were making fortunes by his works or inventions. And even now as we write, there are inventors, and families of inventors, in a state of indigence, notwithstanding the enormous amount of charity that exists and is mismanaged. The State should come to the rescue of men whose lives were spent in the endeavour to benefit their country. Public companies, too, who are enabled by the possession of large capital to utilise the poor artist's or inventor's work, should feel it their duty to afford an honourable maintenance to the men whose inventions and improvements have made them millionaires, and something more. There are many cases of the shameful neglect of practical genius at the present hour as in the eighteenth century.]

"There are also several manufactures which we have from abroad, that may be carried on to as great a perfection here as elsewhere. If it be considered that more fine linen is worn in Great Britain than in any other country of Europe, it will be difficult to assign a reason why paper may not be made here as good, and in the same quantity, as in Holland, or France, or Genoa. This is a manufacture of great consumption, and would save much to the public. The like may be said of tapestry, lace, and other manufactures, which is [if] set on foot in cheap parts of the country, would employ many hands and save money to the nation as well as bring it from abroad. Projects for improving old manufactures, or setting up new ones, should not be despised in a trading country, but making pretences for stock-jobbing hath been a fatal imposition."

[Although the introduction of machinery and the application of steam has entirely revolutionized trades and manufactures since Berkeley's time, yet there are many branches of industry at present which might and could be profitably pursued in, or in connection with, the homes of the peasantry. Paper is plentiful everywhere now, and we have Honiton and Limerick lace, worked by the hands of poor women, in pretty large quantities; but, though this lace is rather expensive in the mart, its manufacture is not very profitable to the poor. The manufacture of tapestry might be once more revived on a proper scale in the British Islands, and receive State patronage for a while. In France, in Flanders, and anciently in England the manufacture of tapestry was practised with uncommon skill, and enlisted the talents of some of the greatest masters of painting. The progress of our present Schools of Art is leading to much improvement, and will undoubtedly, in a few years, show results, both in the design and execution of the numerous articles that comprise our current wants, as well as those connected with our pleasure. Projects of good should on no account be despised, but the country is always teeming with projects that lead to disaster. If we have no South Sea Bubbles now, we have others launched from time to time which are nearly as bad.]

(To be continued.)

## STEPHEN GRAY AND THE EARLY DAYS OF ELECTRICITY.

A VERY interesting lecture was recently delivered in the hall of the Charterhouse, London, by Dr. Benjamin Ward Richardson, on the original discoveries in electricity by Stephen Gray. It may be observed, however, that though the first attempts at the generalisation of electrical phenomena were not made till nearly the close of the sixteenth century, yet long centuries ago the ancients were well acquainted with the fact that certain bodies when rubbed acquire the power of attracting light particles of matter.

The founder of the Ionic philosophy, Thales of Miletus, who flourished 600 years



B.C., showed that the attractive property existed in amber by friction, but of course he was unable to explain the unknown element or the causes of its action. Some centuries later, Theophrastus observed the same attraction in other substances. Pliny and other naturalists similarly allude to the electrical power. Dr. William Gilbert, at the end of the sixteenth century, in his treatise on the magnet, furnished a generalisation of the phenomena; and after this period followed a number of English, Irish, and Continental experimentalists, who advanced our knowledge in the science by accumulating facts. Among these were Dr. Wall and Newton in England, and Roger Boyle in Ireland. In 1728, however, Stephen Gray, a pensioner of the Charterhouse, after some years devoted to the study, performed a number of experiments which led to the discovery of electrical conduction, and to the classification of bodies into conductors and non-conductors.

Of Stephen Gray and his discoveries, however, we will let Dr. Richardson himself speak, merely stating further that the lecturer illustrated his remarks with experimental demonstrations, and the walls of the hall, to further elucidate Dr. Richardson's remarks, were hung with diagrams from the pencil of the veteran artist, Mr. George Cruikshank:—

Dr. Richardson proceeded to say that he wished to refer to the labours of Stephen Gray, a man who was scarcely known at the present day, although a man of genius and ability. There was reference made to him at the time he gained the first Copley Medal of the Royal Society, and Dr. Mortimer had mentioned him also, and in eulogistic terms, but M. Disagulier had been rather harsh with respect to him. The first time that Mr. Gray was known anything about was in the year 1692, when he was, perhaps, about the age of 40, and when he was living at Canterbury and pursuing astronomical studies. In that year he was known to have made astronomical inquiries as to certain mock suns which he saw. He then, in 1696, turned his attention to microscopes, and made one by melting a rod of glass which, when the end was in a molten state, dropped off and formed a round solid globe, which acted as a powerful magnifier. That, however, was not sufficiently powerful, so he made a more powerful one by having a hollow globe of glass filled with water, and with which he was enabled to discover animalcules in the water. The same year witnessed a great improvement of his as regarded the barometer. Otto Guericke was his discoverer, but Mr. Gray invented an ingenious mode of taking an accurate reading of the instrument. In 1699 the same gentleman observed again mock suns in the heavens, and a halo round the true sun, but did nothing more than record the fact. His next step in science was to obtain a meridian-line, after which, in about a couple of years, spots in the sun attracted his attention, and he (the lecturer) took occasion to remark that Mr. Gray was one of the first observers of that phenomenon, and in 1706 he recorded an eclipse of the sun. From this time up to 1717 very little was heard of either him or his researches, but in the latter year a paper was sent by Prince George to the Charterhouse, requesting that he might be admitted. After his admission to the Charity, he remained without doing much until 1720, when in that year he recommenced his labour by sending a paper to the Royal Society, denominated "Some New Electrical Experiments," and some little time after that event he became known to Dr. Gilbert, a man of great research, and physician to Queen Elizabeth. Dr. Gilbert made several experiments with the magnet as to its power of attraction; he also discovered that amber when rubbed would lead a balance needle, and in prosecuting his inquiries further found out that sealing-wax, resin, and glass possessed the same qualities, but that they were different from the magnet in many other respects. He therefore named them after the Greek word for amber (electron), thus bringing into use the word electricity. That was one of the men who took notice of Mr. Stephen Gray and his experiments. The lecturer then went on to say that about this period some experiments were made with reference to repulsion and attraction by Mr. Gray, which were followed up by Sir Isaac Newton, and during which the great philosopher discovered that small pieces of gold leaf and paper placed in a box with a glass lid would fly up to the lid when it was briskly rubbed. Mr. Gray then discovered if parchment, goldbeater's skin, and brown paper were heated, they would all attract feathers towards them. A fir rod, with an ivory ball attached to it and placed

in a cork, and the tube in a charged glass rod, would also produce the same result. That showed to the ingenious mind of Mr. Gray that electricity could be transmitted from one substance to another. This experiment was beautifully and skilfully illustrated. Mr. Gray having discovered that electricity could be so transmitted, led him to try packthread as a conductor. Packthread was accordingly employed, and found to act very well as such a medium when used in a vertical position; but when in a horizontal one it would not carry any spark at all. That discovery was made in a barn by Mr. Granville Wheeler, at Atterden House, near Faversham. The cause of the failure was owing to the fact that the current passed off up to the ceiling. The line was then suspended at distances by means of pieces of silk thread, and when that was done the current passed through to the end of the line. As silk thread was easily broken, copper wire was employed, but with no better result than the packthread, and by that means it was discovered that there were some bodies which carried off the electric current, and others which concentrated it. After this later discovery the first electric line in the world was made on Mr. Wheeler's ground, and a message through a pack thread, and attached to a charged glass rod was sent a distance of 870 yards from the grounds of Mr. Wheeler up to his garret window. Mr. Gray having thus discovered one of the grandest discoveries in the world, followed up his researches, and found out that it was not necessary to have contact to pass an electrical current. That was called induction, and some short time afterwards, in 1732, the Royal Society awarded their gold medal, and in the same year the recipient of the gold medal further contributed to science by discovering that water could be made a conductor, and also that resin could be made to act as a good insulator—a grand discovery, for without insulators we could not make much use of the electric current. In 1735 Mr. Gray also succeeded in obtaining the electric spark; which he did by means of a charged glass rod brought into contact with an iron bar resting upon bands of silk. After this period not much was heard of him, and his time was fast drawing to a close. Before that time, however, he invented a machine which he called his planetarium. It was a round box filled with resin, and a metal ball in its centre. Over this was suspended a pith pellet, and if the pellet gyrated in a circle the ball was in the centre, but if it were not it would move in an elliptic. By such a means as that he thought he could show a complete planetary system. He was, however, mistaken, for the twirling of the pith pellet round the globe of metal was, no doubt, caused by the pulsation of the blood through the fingers. As a further proof of Mr. Gray's intellect, the lecturer mentioned that that gentleman, when he obtained the first spark of electricity, prophesied that electricity generated by a machine would become as powerful as the same force in nature. That, no doubt, would soon be the case, for he had himself killed sheep and other large animals instantaneously with a machine weighing 15 cwt. In conclusion, the lecturer took a rapid survey of the progress which had been made in the science of electricity, and in doing so paid a high tribute to the genius of Volta, Galvani, and Faraday.

#### WHY THE PRICE OF GAS SHOULD NOT BE INCREASED.

THE following remarks, which appeared in a recent issue of the *Builders' Weekly Reporter*, are so applicable to the present position of our local "Alliance and Consumers' Company," that we reprint them for the benefit of our readers:—

"Mr. Eccleston Gibb, the vestry clerk of St. Pancras, in a little pamphlet just published, has most effectually disposed of the demand of the Gas Companies for permission to increase the price of gas in the metropolis. The companies base their demands for an advance upon the greatly increased cost of coal and labour. Mr. Gibb shows, in reply to this, that the rise in the price of coal has been accompanied by a still greater rise in the price of the residual products (such as coke, gas tar, &c.) remaining after the extraction of gas from coal, and in proof he gives some striking illustrations. For instance, in 1859, the value of the residual products amounted to 34 per cent. of the coal used by the Imperial Gas Company; in 1866 the value had risen to 40 per cent.; and in the first six months of the past year it had reached the proportion of 56 per cent. In 1859, therefore, the Imperial Gas Company had to recoup itself by the sale of gas for 66 per cent. of its outlay on coal; while in the first half of 1873 it had to do so from this source for no

more than 44 per cent. of its outlay. But this is only part of the case against the companies. Mr. Gibb shows, in the second place, that although wages have risen so considerably, the cost of labour to the gas companies has fallen, at least relatively to their produce and incomes. In 1866 the net cost of coal added to the manufacturing and distributing the gas amounted in the case of the Imperial Company to £328,932, or equal to a rate of 33 16 pence for every thousand feet of gas sold. In the first six months of the past year, the total amount was £221,500, and the rate 32 08 pence per thousand feet of gas sold. In spite, therefore, of the great rise in wages and in the price of coal, it will be seen that the cost of materials and of the manufacture and distribution of gas has actually fallen during the last seven years. This has arisen, no doubt, from the greater efficiency of labour and improved modes of manufacture. Cheap labour, as has been proved over and over again, is not always profitable, and the Imperial Gas Company has profited by the proof. If the company's servants receive higher wages now than they did in 1866, they do more and better work. Besides, there is the greatly increased demand for gas, which, as a matter of course, tends to increased profits. But Mr. Gibb is not content to show merely that the gas companies have no grounds for demanding an increased rate, for he directly charges them with wanton extravagance and waste. In the course of the enquiry last year, he says: 'By the Board of Trade Commissioners, with regard to the application of the Chartered Gas Company for an increase in the price of gas, Mr. G. W. Stevenson, gas engineer, stated in evidence that the company permitted a loss of 750,000,000 cubic feet annually, or 16 53 per cent., while the South Metropolitan Company wasted only 7 per cent. This witness also said that if the Chartered Company would reduce their waste to this they would add £60,000 to their annual income and 3½ per cent. to their dividend.' It may justly be urged, as Mr. Gibb urges, to permit the companies to increase their charges while guilty of such waste as is mentioned in this extract, is to give a premium to mismanagement, and to remove the only inducement which the companies now have for economising the reserve wealth of the nation and the source of its manufacturing prosperity. Mr. Gibb also calls attention to another point, which is well worthy of attention, and which we hope to see taken up with more spirit than it has hitherto been. It seems that one of the gas companies last year applied for powers to purchase collieries, and charter vessels to bring the coal to London. Suppose the application should be successfully renewed, and that authority is also given to increase the price of gas, what, he very naturally asks, is to prevent the company so succeeding from issuing new capital to any amount, and raising its charges to the gas consumers of the metropolis to such a sum as will guarantee itself the maximum dividend of 10 per cent., not upon its legitimate business as a gas company only, but upon its new business as a colliery owner and shipper into the bargain?"

#### LORD DERBY ON SANITARY MATTERS.

LORD Derby, a few days ago, at a dinner in aid of the funds of the University College Hospital, London, gave expression to some most pertinent and judicious remarks about the great uses of public hospitals, and their value to the community. His lordship also touched upon the abuses in connection with some of these institutions. We give a few of the concluding remarks of his lordship, as they contain sanitary truths that cannot be too often preached:—

"We all hope that a time may come when the average of disease and mortality may be very much lower than it is at present. Better lodgings and better habits will accomplish a great deal in this direction. When we recollect what, in a sanitary point of view, a great town is at the best—when we recollect that in the London parks and squares there are only three or four kinds of trees which reasonably grow, and that an atmosphere which kills an oak is not a healthy one for a child—when we bear in mind poverty, intemperance, and crowded homes, which are not likely to disappear in our time—when we remember that physical weakness and disease are inherited, and, as a general rule, the children and families which have lived for generations in town are below the normal condition of health and strength—when we bear in mind all these things, and when you recollect if it were possible to get rid of this you could not get rid of accidents, it seems to me clear that our great hospitals will find work enough to do, not only for our time, but for as many generations as we have to look forward to."



## A PLEA FOR ART, SCIENCE, AND LITERATURE.

OUR people have often been stigmatized as a nation of mendicants, and we do not dispute that, betimes, to the English mind there would seem to be some truth in the taunt. With the political aspect of the case we have, however, nothing to do in the pages of this journal. We are neither political nor professional beggars, but we are not ashamed at the same time to put forward a claim for and on behalf of the interest of art, science, and literature. In these respects we are most shabbily treated as a people—shabbily treated heretofore both by Conservative and Liberal Governments. Our Royal Irish Academy has a public grant, to be sure, but one miserably inadequate for the purposes of the institution, or for the prosecution of the work which by right belongs to it. The Royal Hibernian Academy, a society that owes its establishment to the private munificence of a talented native architect, is also shamefully treated. The Royal Dublin Society is, perhaps owing to its antiquity and long career, in a better position; but for its labours and services in connection with its School of Art, it deserves more aid.

There is still another prominent and meritorious body, the Royal Historical and Archaeological Society of Ireland, whose claims are strong, whose activity, usefulness, and industry, are beyond all praise; yet it is permitted to carry out its functions as best it may, by the subscriptions and donations of its members, without any State support. The preservation of our national monuments, and the amassing of the varied materials needed for a real national history of the country, is a work which is deserving of prompt recognition and practical support on the part of any Government, irrespective of party considerations. There are other bodies, too, in this country, deserving of aid, but the thoes we have mentioned have very strong claims indeed on the Imperial Exchequer.

As a journal which humbly but honestly represents the interests of architecture, art, science, archaeology, sanitary and other cognate matters, we feel it is our bounden duty to speak unprompted in the interests of the above institutions. We trust, then, that during the tenure of the Conservative Government evidence will be afforded that true conservatism means the conservation and support of learned and useful bodies, which reflect credit upon our country, and that could add to their credit and national usefulness if they received reasonable State aid.

## RAILWAY MANAGEMENT.

WE had, lately, explosions *in re* gas management, tramway management, and railway management—perhaps we should have written mismanagement. Shareholders have often to be pitied, but it must not be forgotten they often cut the sticks by which they are punished. The directors of the Dublin and Wicklow Railway, although they have succeeded for the present, by getting a vote of confidence passed in their management, the public have seen enough and heard enough to make them suspicious, and to entertain strong doubts of the creditable management claimed on behalf of that body. Directors are not parties in whom we can always place implicit reliance, and their half-yearly reports have to be accepted for what they are worth. If the statement made by Mr. Kelly at the late half-yearly meeting of the above railway be true, certainly there is anything but a creditable management on the part of the directors. We have been led to suppose the prospects of the Dublin and Wicklow Railway were encouraging—but let us hear what Mr. Kelly has to say:—

“Finding these promises of progress unfulfilled, some of the shareholders were led to look into the accounts for some time past, and they found that the gross traffic on the line for 1870 amounted to £191,000; for 1871, £200,000; for 1872, £211,000; for 1873, £227,000. That showed an increase of £36,000 in 1873 over 1870, while the

working expenses had increased from £78,000 to £108,000 in 1873. In fact, between working expenses and increased interest charges, the working of the line was worse off now in net results than in 1870. In fact, the net earnings of the line were only about £200 greater in 1873 than in 1870, notwithstanding that in the interval £175,000 was spent of capital account, and that they had 10 miles of the Wexford extension line open. The last four years had been most prosperous to all railways, and why was it that such poor results, with such an enormous outlay, had resulted to this company. The City of Dublin had been increasing in prosperity for four years, and they would naturally expect that their line should have received a due proportion of that prosperity. What did they find? They found that in the half-year ending 31st December, 1869, the number of passengers travelling on the line was 2,313,428, and on the 31st December, 1873, the number was 2,279,804. In 1872, the number of passengers for the whole year upon the line was 4,401,000, and for the whole year 1873, the number was 4,154,000. The carriage of live stock had also decreased. It was all very well for the directors to say that the management was perfection, but these were serious facts for the shareholders to consider. They had not far to go for the cause of these decreases. Their opinion was that it arose from bad management, and the way in which the line was conducted; the travelling public and newspapers endorse this opinion. The Shareholders' Committee only desired to confer with the board. They had not sought for proxies. If some concession were not made to their demands, the agitation would not die, but would be continued, and would end in success. In four years £12,371 had been spent in law costs. In 1870 there was an expenditure of £904; in 1871, of £285; in 1872, of £1,339; and in 1873, of £1,268; and not a shilling of these four items had been incurred for Parliamentary costs or the opening of the Wexford extension. The law costs of the Wexford extension alone had amounted to £6,000 during the last four years. The shareholders were perfectly justified in complaining of these bloated bills of costs. When the dirt of the carriages had been spoken of, *poverty was pleaded*; but no such plea appeared to have been made as regarded the payment of law costs. The amount of rolling stock now was the same as in 1869. What the public complained of was the whole *ensemble* of the carriages, which looked as if they were never washed or brushed out. On one Sunday he was travelling with two ladies down the line. An extra first-class carriage was brought from under a shed, into which they got, and it was so musty and unwashed that the ladies were made ill by the smell of it. It had also happened more than once that passengers who had taken first-class tickets had been obliged to travel in second-class carriages from the want of accommodation of the description that they had paid for. The first-class return ticket on their line, price 1s. 8d., was the dearest article of the kind in England, Scotland, or Ireland. The object of the shareholders was simply to increase the prosperity of the line, and what they wanted was that the directors should show themselves alive, and cater to the public in a liberal spirit, giving them increased facilities and accommodation. He denied that the working expenses were low. The traffic being passenger, the expenses should be light, and the line in this respect should not be compared with such lines as the Great Southern and Midland Great Western, which were heavy goods carriers. He believed enormous benefit would result from the appointment of a general manager. He would ask what was the estimated cost of the relaying of the Kingstown line? These were all matters that should be furnished in the report, and not left to the statements of the chairman.”

We have read the speeches of the chairman and other of the directors, and we must candidly say that they have not been able to explain away the stubborn statements of Mr. Kelly. The fares are exorbitant, the carriages are discreditable, the working expenses are high, and the law costs are, certainly, bloated and extravagant bills of cost. We would not desire at all to see the efficiency of a railway staff impaired, for safety, comfort, and expedition, if it be ensured, is worth a reasonable outlay. The management, however, of the Dublin and Wicklow Railway does not show any improvement, but a decided retrogression; and it is the bounden duty of the shareholders to protect their property, and prevent it from being permanently injured. Once mismanagement sets in, in a public institution or a railway company, there is no safe remedy save in its re-organization and a change in its management, which can only be effected by an infusion of fresh blood.

Perpetual officials, ornamental or otherwise, are always a danger, no matter how personally respectable they may be. Stagnant water soon fouls, while running water maintains a comparative purity. Railway management is one of these matters that requires practical heads, and a directorship as upright as it may be influential—a directorship that will not fear the brunt of public criticism.

## THE ARCHITECTURAL ASSOCIATION OF IRELAND.

[COMMUNICATED.]

AN ordinary general meeting was held on Thursday evening last. The President, J. J. O'Callaghan, in the chair. There was but a small attendance of members. The minutes of the previous meeting were read and confirmed. A letter was read from T. N. Deane, Esq., permitting the association to visit the new Munster Bank, Dame-street, on Saturday afternoon, the 7th inst. The following communication from the Executive Council for International Exhibitions was read:—

“The Committee for Architecture has recommended that special classes of architectural designs shall be collected for each year's exhibition, and that school, commercial, church, municipal, and domestic buildings, shall be taken in consecutive order as distinct features in the class of architectural designs. It having been decided to commence this year with the representation of scholastic buildings (including colleges, schools, museums, libraries, and gymnasia), I am to request that you will move the Council of the Architectural Association of Ireland to afford the committee the benefit of their valuable assistance by promoting the exhibition of designs of the nature specified. I am to observe that the committee recommended that a small explanatory plan should be inserted in the corner of each drawing. In the event of any members of your society wishing to become contributors to this section of the Exhibition, I am to request that they will have the kindness to fill up one of the forms of application, and to return it to this office immediately; also to cause their works to be delivered at the Exhibition Buildings by the 16th March next.

“T. A. WRIGHT.”

Mr. J. L. Robinson, hon. sec., then read a paper on “Architectural Students.”

Mr. W. Fennell proposed a vote of thanks to Mr. Robinson, and agreed with him that the chief fault lies with parents who cause their sons to be trained as architects, who do not like it; at first it is all well enough, but after a few months the business becomes distasteful to them.

Mr. Browne, in seconding the vote of thanks, said that the subject brought forward to-night by Mr. Robinson is one that architectural students are painfully aware of. No doubt great abuses exist in the system of pupillage, but much might be done by the British and Irish Institute for pupils, by forming science and other classes. He was sure that architects would have no objection to their pupils leaving their offices for one hour each day to attend such classes. Undoubtedly the amount of knowledge required by an architect exceeded that of any other profession. He must be of a talented nature, and have an aptitude for art and mechanics. As for studying after hours at home, he thought eight hours quite long enough for a day's work, without working at night. As far as his knowledge of the present system went, everything is learned in a haphazard way, and nothing completely.

Mr. R. S. Swan said an architect must not only be an artist, but a good man of business; unless he is such he cannot be an architect. Art is, no doubt, very pleasant, but the other is a very material part of the profession, as the architect has long builders' accounts to settle, and on him very often depends whether his clients will be brought into lawsuits or not.

The President said that the meeting to-night gave him the greatest concern; he hoped that he never would, as long as he was a member, see the like again. He could not but feel indignant at the disgracefully small attendance. He could count on the fingers of his two hands the attendance at the general meeting to-night. It is very discouraging to the small band of men who are the life and soul of the association, and who are giving their valuable time for the sake of the other members, that their efforts are not appreciated. It was, he must say, an exceedingly bad compliment to Mr. Robinson, who had, at great inconvenience to himself, prepared his paper at a short notice on this important subject. Having mentioned the matter, he hoped he should never have to refer to it again. As for the remarks made by Mr. Browne, he thought eight, ten, or twelve hours a day as too little for a



man who loves his profession to spend at it. He would feel very little sympathy with the man who would put by his drawings at 5 sharp, and go at them again at 10 the next morning. As for the abuses of the system, shewn forth by Mr. Robinson, he considered the fault lay with the pupil, and not with the architect. He recollected the time when there was neither an institute or association in Dublin to assist the student, and now that there is an association it is not taken advantage of. He concluded by putting the vote of thanks, which was carried.

Mr. Robinson, in returning thanks, said that his paper barely touched on the subject. He thought that the fault principally lay with the pupils, who spend their time in idleness and folly, and do not take advantage of such aids to their studies as the association. The voluntary examination of the British Institute has proved another failure—as, if the student passed he gained very little, and if plucked, he lost a great deal. On the whole, he considered the British system of pupilage gave greater individuality to the architects than the mere academical course of studies pursued in France and Germany.

### THE WATER SUPPLY OF DUBLIN.

ON Tuesday last a paper was read and brought under discussion, at the Institution of Civil Engineers, London, "On the Water Supply of the City of Dublin," by Mr. Parke Neville, M. Inst. C.E., our Borough Engineer.

We are unavoidably compelled to hold over a summary of this paper (although in type) until our next issue, contenting ourselves with a few casual remarks upon the subject.

As to the economy that signalised the promotion and execution of the waterworks of Dublin, our English engineering friends had better consult some of their independent brethren in this city. Mr. Neville has not given by any means an exhaustive statement of our water supply, and, perhaps, it was to be expected.

There is one thing, however, which we would have liked Mr. Neville to have taken up and described, as introductory to his subject—the early attempts and means adopted for supplying the City of Dublin with water from the days of the first fountains and conduits down to the present. Such an account would have been historically interesting.

Richard Castles, the architect of Leinster House, the Lying-in Hospital, and other public buildings in this capital, published a scheme early in the last century, for supplying Dublin with water. Again, at the close of the last century, William Mylne, architect and engineer, whose remains are buried in St. Catherine's churchyard, carried out the system of water-supply that preceded the present. Connected with the establishment of the City Basins, and the taking of the supply from the canals, much curious and interesting information might be made known. Pendant to the subject, also, the old well and pump-supply of the city would afford a good deal of matter for treatment. The history of the water-supply of Dublin, in the hands of a practical and genial writer, would form a very interesting and instructive volume, and we hope it may be one day written.

### THE ROYAL IRISH ACADEMY.

THE Academy held a meeting on Monday evening last, the 23rd ult., under the presidency of the Rev. J. H. JELLET, F.T.C.D.

We regret to notice a very miserable attendance of members on the occasion.

Two papers (held over from previous meeting) on "An Ogham Inscription on a Pillar-stone found at Mount Music, Co. Cork," were read, for the authors, by Mr. John Ribton Garstin (acting secretary). The first was by Mr. R. R. Brash, Cork; the second by Mr. Samuel Ferguson, LL.D., V.P. The stone referred to was purchased some years ago by the late John Windele, of Cork, from a farmer on whose land it had stood. It is of a hard quality, and bears Ogham characters which, with some few exceptions, are still distinct, viz.:—"ANNACANNI MAQI AILLUATTAN,"

which, Mr. Brash interprets thus:—[The stone of] "Annacann, the son Ailluattan." The name of Annacann can be identified in the Irish Annals, and it still survives in the name Hannagan. Dr. Ferguson, in his paper differed from Mr. Brash in his reading of the inscription. He thought it should be:—"ANNACANNI MAQI AILLITAR." According to a recognised usage in some old inscriptions, a double reading of the middle word was intended by some of the additional strokes of the inscription changing the *g* into *r*; upon which hypothesis, and omitting the "ai" at the beginning of the last word and an iteration of the termination of the second, it would run as follows:—"Annacanni Maqi Mariai Aillitar," being equivalent to: "Annacanni, Filius Mariæ Peregrinus," or "Annacanni, a pilgrim of the Son of Mary."

Dr. Henry Wilson read a paper descriptive of an ancient bronze shield lately purchased by the Academy. Sir William Wilde said that no doubt, the shield now before the Academy was interesting, as having come from the same Scandinavian source from which other interesting antiquities found in the three kingdoms had come, but he had always been opposed to anything being placed in their museum which was not purely Irish.

Mr. Garstin thought the purchase made that day by the Academy a most judicious one. The price paid was, we understand, £30.

The reading of the fourth paper on the list for the evening, by Mr. Donovan, "On Improvements of his Hygrometer," was postponed till the 16th inst., when also an election of officers will be held.

### THE VARTRY ENQUIRY.

AN enquiry was held at Roundwood on Thursday last by Captain Robinson, L.G.B.I., into the alleged pollution of certain streams tributary to the Vartry river, and the alleged neglect of the guardians of the Rathdrum Union, as the sewer and nuisance authority, to provide a sufficient system of drains and sewers for the town of Roundwood, in order to secure the health, comfort, and cleanliness, and to prevent the fouling and pollution of the streams referred to. Evidence was adduced on the part of the Corporation to prove the fouling of the streams, but the Rathdrum Board denied they were guilty of any neglect, and they also put forward evidence that the town never was in a more healthy or better sanitary condition. While, on the part of the Corporation, Dr. Mapother stated that the town was the worst in Ireland he had ever visited, as regarded back yards and water-closets. Mr. Ryan, who appeared on behalf of the Rathdrum Guardians, said that he understood that at Vartry Lodge there was actually a water-closet which emptied itself into the Vartry. It would appear, then, that there is neglect on both sides. We trust, however, that the water supply of our city will be protected from pollution, and steps will be taken in the meantime by both parties to remedy the evils complained of. The evidence elicited by the enquiry is forwarded by the inspector to the Local Government Board. We will have further to say anon.

### HOME AND FOREIGN NOTES.

Mr. Dixon is the contractor for the Upper Gully Drainage Works, Queen's County, at the sum of £11,180. The plans and specifications are by Mr. E. P. Nagle, C.E.

Mr. David Chadwick, M.P., has offered £5,000 and 10,000 volumes of books to build and stock a free library in the town of Macclesfield, and the Free Libraries Act has been adopted at a public meeting of the inhabitants, in order that this munificent offer may be taken advantage of.

A work of a most interesting kind is about to appear, descriptive, historical, and topographical, of the Hundred of Gartree, Leicestershire, in which all the principal churches and monuments will be illustrated by the author, the Rev. John Harwood Hill, B.A., F.S.A., &c., Rector of Cranoe. The pedigrees of the county families will also be a valuable feature. This work will prove highly interesting, and especially to architects, since many of the Leicestershire churches are remarkable examples of the high development of a particular period of Gothic architecture.

### TO CORRESPONDENTS.

CLONTARF CHURCH.—The parish church of the village of Drumcondra is so called. The graveyard is an old one, but the present edifice, if not altogether a modern one, has been well modernised by alterations and repairs several years ago. There are one or two monuments in the church worthy of notice—that of Marnaduke Coghlin, Chancellor of the Exchequer in Ireland, a reclining statue in the official robes, with the figures of Minerva and Religion below, is the best example. In the graveyard without there are buried some few remarkable men, among whom are Captain Francis Grose, the antiquary, and James Gandon, the architect (in the same grave). Here also is buried Thomas Furlong, the poet, and translator of *Carolin's "Icelanders,"* under a monument erected by his friend, James Hardiman, the historian of Galway. Before Glasnevin churchyard was opened, Drumcondra was the principal burying ground for the northern part of the city.

QUERIST.—We do not know where you could purchase the "Transactions" in any number. A complete set, we believe, exists in the library of the Royal Irish Academy.

HOCY'S COURT.—Some particulars of this spot will be found in Gilbert's "History of Dublin." It is remarkable as the birth-place of Dean Swift. A good deal of interesting information might be still collected and published in reference to this court, which was, at one time, the abode of wealthy merchants and traders. Modern alterations in connection with the Castle and the "Castle Steps" have changed the whole appearance of this locality, and for the last half century or upwards Hocy's court has had a headlong fall from a region of comfort to a region of wretchedness. We may give some notes about the once-famous court on a future occasion.

A BUILDER (Belfast).—The Association is extinct in Dublin, but there is one in London—but whether it has a representative in this city we know not.

WOOD PAVEMENT.—In its revived form it has been favourably received in London by the cab and omnibus interests, but we question its durability and economy. From the manner in which its basis had to be prepared, by the laying of boards lengthways and transversely, it makes it very inconvenient, indeed, when the pavement requires to be raised to get at the sewers, water, and gas mains. Raising the blocks of wood is easy enough, but to have to be cutting through, and digging up, a wide extent of the boarding and other matter below, render it very difficult indeed to have it properly repaired afterwards.

PORTOBELLO.—We must decline to open our columns to the discussion of political questions. Let us have your views on social, sanitary questions, or in the shape of hints or suggestions for public improvements, and we will let them see the light as far as there is a practical value in them.

A BRICKLAYER.—Drop us a line on the matter, but let it not be out of plumb.

GOTH (Limerick).—Send your drawings. If suitable, we shall be happy to make use of them.

TYRO (Ballybrittas).—Weale's Rudimentary Series, Nos. 16 to 18. Lockwood and Co., London.

JUSTITIA.—In the eye of the law it might not be deemed robbery. We will give it the milder term, "petty larceny."

C. P.—The amount collected for the Banim Testimonial is now £335.

Correspondents who sent us copies of country papers are thanked. They would oblige us, however, by sending them sooner after the date of publication.

\* Several papers, notices, &c., are unavoidably held over till next issue.

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## GREAT SOUTHERN AND WESTERN RAILWAY (IRELAND).

It appears from the chairman's statement at the last half-yearly meeting of the company, that the earnings of the best railways in Ireland compared with the best railways in England did not amount to more than one-third or one-fourth of the English lines. In Ireland at the present moment they were paying double the price for fuel that they were paying for fuel in the Midland and Northern districts of England and Scotland—they were, in fact, paying a higher price for everything they imported—iron, rails, and everything used in the working of the line. They had to pay additional cost for freight and carriage. Their wages for skilled labour were quite as high as they were in England, and the only advantage they possessed was that unskilled labour was rather cheaper than in England; yet wages for unskilled labour was approximating closely to what they were in England.

The company have to go to Parliament for powers to make alterations necessary at Cork and on the Queenstown branch. As to the North Wall Extension, the contractor was proceeding with the work, and it was believed it would be finished in two years' time. They had received every assistance and accommodation from the Board of Works in going through the Phoenix Park.

At a special meeting of the company the business submitted was in relation to an application to Parliament for powers to enable the directors to raise capital to the extent of £360,000, to meet expenditure rendered necessary by the great increase in traffic which, as the report had stated, required an enlarged accommodation at every important station on the line. The principal outlay will be at Cork in widening the mouth of the tunnel, to make land hitherto useless available for sidings and other accommodation, to extend and improve the line from Cork to Queenstown, to increase the sidings and buildings at various stations, and to pay for the rolling stock now in course of delivery, and further additions thereto, which may be necessary in the course of a few years, to meet the requirements of increasing traffic.

The extension scheme met with some forcible opposition at the special meeting, but the resolution sanctioning the bill was put and carried. The proprietors were assured at the same time that the expense of a Parliamentary fight would not be incurred without calling them together again.

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**MANUFACTURE OF COCOA**—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston road, London."—*Cassell's Household Guide*.

### NOTICE.

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Correspondents should send their names and addresses, not necessarily for publication.

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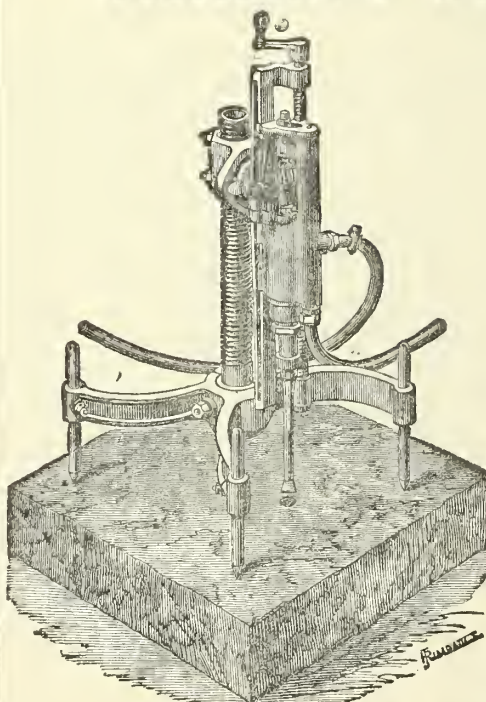
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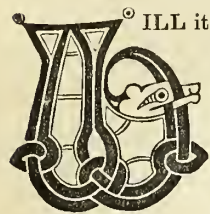
THE McKEAN ROCK DRILL.—Although, perhaps, less prominence has been given to the McKean drill than to some others in the various articles and letters which have from time to time appeared in the *Mining Journal*, the introduction of the machine has been steadily going on, and the results obtained with it have been in every case satisfactory. The machine is in general use, amongst other places, at the St. Gothard Tunnel, and St. John del Rey Mines, and from the acknowledged practical ability of the gentlemen who have control of the working operations at these places, the mere adoption of a machine by them is a very strong evidence in its favour. With regard to the St. John del Rey Mines, in particular, it may fairly be said that the managing director—Mr. John Hockin—has for years past displayed the utmost discrimination in the selection of the best machinery and materials obtainable in the market; hence, perhaps, the success which has attended his efforts to reinstate the company in its former prosperous position. Mr. Hockin was amongst the first to appreciate the value of dynamite as a substitute for blasting powder in mines, and the economy he has effected by its use has been enormous; the result of using the McKean drill is equally satisfactory. The reason for his choice will readily be understood when the claims put forward for the McKean drill are considered. As compared with all the drills at present in the market, its advantages over them are that it is the simplest in construction, and contains the fewest parts; that no duplicate parts whatever require to be furnished with the machine, that it is more durable on account of its superior mechanical construction, that it is the most powerful, and runs at greater speed than any other, without liability to derangement or breakage, and that it possesses greater facility of manipulation in its adaptation to various kinds of work. The work done with the machine certainly goes far to establish these claims, and to remove any doubt that may exist Messrs. McKean & Co. announce that they are quite prepared to submit to any competitive tests to determine the facts. This is only repeating the challenge made more than 12 months since in the *Mining Journal*, and as Messrs. McKean & Co. expressed their willingness to agree to any reasonable conditions, it is to be regretted that a competition promising to prove so extremely valuable to miners should never have taken place. The renewal of the offer at this time, when increasing interest seems to be taken in the matter, is particularly opportune, and its non-acceptance by rival manufacturers could only be regarded as a tacit admission on their part of the superiority of the McKean Drill.—*Mining Journal*, Nov. 22, 1873.



# The Irish Builder.

VOL. XVI.—No. 342.

## Wooden Architects and Architecture.



ILL it be believed that there are certain pretentious architectural scribes and unsuccessful practising architects in London who, for the want of better occupation, have begun to re-

commend the advisability of the nation returning to the old mode of timber construction. These gentlemen very discreetly hold back their names from the public, as their signs manual would not add any further strength to their views. Peter of old, it has been written, denied his Master; but our modern Peters deny themselves, for we have a strong suspicion that one or more of the scribes that write follow up their views by endorsing their own opinions, endeavouring thus to mislead the public with the belief that the "Wooden Revival" has been a complete "hit."

Now, timber is a very useful and indispensable material as yet in house construction, and the half-timbered houses of the fifteenth, sixteenth, and seventeenth centuries were very picturesque objects. Where any specimens of this class of our domestic architecture exist, from an archaeological and antiquarian point of view we would like to see a few of them at least preserved. In a suburban village or a country town they possess a certain charm, but in a crowded city and in a state of society like the present they are totally out of place. It boots not that timber is largely utilized for house construction in America; the condition and settlement of the country, and the rapid growth of its cities, explain the cause; but even in America as soon as society settles down, and institutions are permanently established, timber construction gives place to brick and stone.

Architects can do little for us in the way of timber building that cannot be as well done by the carpenter; and we would seriously advise our architects to let carpenters' architecture alone. It was our carpenters and joiners of old who designed and built all our old whole-timbered and half-timbered houses; and our architects of the present day will not be able, with all their ingenuity, to win a laurel in this direction. The architecture of the future does not lie in the way of verandahs, summer-houses, and tea-houses, and cage-work structures, however picturesque, and belonging to an age, and a people, and a state of society that can never be revived, unless indeed a second Deluge comes and another barbaric age is possible.

Dublin, as well as London, had her once famous timber houses, and many of them remained in this city down to the close of the eighteenth century, and a few continued to exist in our midst early in the present century. Even in Holingshed's time, who wrote a chronicle anent his travels in this country as well as in England, many of our domestic structures were composed of clay covered with ferns, heath, or straw. Of England Holingshed writes:—"The greater

part of our buildings in cities and good towns of England consisteth only of timber, cast over with thick clay, to keep out the wind, &c." Here with us several of these houses were framed with timber, the panels wattled and pargetted over with coloured clay and mortar. The celebrated Dick's Coffee House once existing in Skinner's-row (now Christ Church-place) was built in this manner; yet it was considered at the time so convenient, roomy, and elegant, as to be inhabited by the Earl of Kildare in 1534, and was known by the name of the "Carbrie."

Fynes Moryson, who was in Ireland some years later, writes thus, in 1589, of our domestic architecture:—"The houses of Dublin and Waterford are for the most part of timber, clay, and plaster; in general they very seldom keep out the rain, the timber being not well seasoned and the walls being combined with clay only, not with lime and mortar tempered; and many gentlemen have castles built of freestone unpolished, and of flints or little stones; and they are built strong for defence in times of rebellion, for which cause they have narrow stairs and little windows, and commonly have a spacious hall adjoining to the castle of timber and clay, wherein they eat with their family. The mere Irish sleep under the canopy of heaven or in cabins wattled and covered with turf."

The mere peasant English, in many districts, were not in much better position than their Irish brethren. Would our wooden architects like us to go back to the period described in the above paragraph? By long and laborious struggles the British people have emerged from such a picturesque kind of dwelling; but we are not yet entirely rid of mud cabins in either of the three kingdoms, and Ireland, unfortunately, has the unenvious distinction of possessing the greatest number of buildings of the primitive type. Why were our old cities and towns so often ravaged and burned down, and subject to periodic epidemics? Was it not from the fact that our domestic buildings contained the elements of their own destruction? Our towns and cities were plague spots; and it was a happy relief, perhaps, that burnings so often took place, the fire acting as an admirable sanitary agent, at least. The old timber structures existing so plentifully in London in 1666, helped to fan the flames; and though grievous and mighty the loss occasioned by the Great Fire, it led to improvement in the public and domestic buildings of that city. That fire, too, effected good sanitary service, coming immediately after the Great Plague.

Our wooden architects are riding a hobby of which they will soon tire, and, like our children, they will cry out soon for some new plaything to amuse their hands upon. If they can only get a few equally wooden-headed persons like themselves to hark to their cry, the Wooden Revival will not pass away from public notice without making a sacrifice of some unfortunate enthusiast who possesses more money than brains. The Sixth Order of Architecture has been a failure; the Gothic Revival has been a partial success; but Peter de la Roche and Augustus Welby Pugin, though widely different, had the courage to write over their sign manual, and the latter succeeded, because he knew what he was writing about. In the Gothic, there was something worth returning to in stone, style and timber roof, and perhaps in church furniture; but in timber construction, as a whole, there is

everything to avoid, as far as our crowded towns and cities are concerned. In internal fittings and finishings there can be a good apology made for the use of timber, but there can be no sensible defence made for its adoption in our civil architecture. Its use can only be temporary, and with its extensive use there must also be a danger, unless, indeed, timber could be rendered fireproof. Yet, even then, externally its durability would not be of that lasting character that would secure it any extensive adoption.

The revival of the wooden pavement in London would seem to have set some of our wooden architects there into a state of wooden ecstacy. With pavements of wood, quoth they, why not wooden bricks or blocks? With wooden streets, why not wooden houses? And it comes to pass, the glorious opportunity brings the fitting men.

Fashion, the most *outré* and outlandish, if it be a transatlantic article—that is, if it is introduced from abroad under some favourable influence,—is eagerly caught at. So eager are some people to see a new fashion adopted, that they will sit down, without a moment's consideration, to tell us of all its good points, forgetting that their own countrymen discarded the same fashion centuries ago. History is ever repeating itself. Timber houses have come from Norway and Hamburg centuries ago; at least, the framings and fittings have come, and they have been put up by British carpenters; and British carpenters, in their turn, have sent out the framings of timber as well as iron structures to British settlements many years ago. Of whatever materials may have been the original Greek and Roman temples, whether they were wholly of timber, or of timber and clay, we do not now care to know. The temples, we do know, belonging to these nations furnish us with orders of architecture of which the world will feel always proud, while marble, limestone, and granite last, and while the cunning hands of artists and skilled workmen are exercised in building construction.

The architecture of the Parthenon or the ruined Coliseum, or other kindred buildings, will never be revived in timber, neither will the public buildings of these countries, nor our street and villa architecture. Utopias will, however, always exist for light-headed professional men as well as outsiders. Turkeys are affected at the sight of a red rag, and our wooden architects at the sight of a wooden pavement. We would advise those poor hapless individuals to become reconciled to their position, if they can; if not, it may be advisable for them, in imitation of Philotas, the poet and schoolmaster of Cos, to wear a cap of lead, to prevent them from flying off in a tangent to the moon.

## THE ARCHITECTURAL ASSOCIATION OF IRELAND.

At the last meeting of the association the president had just reason to complain of the apathy of the members, and, indeed, of the profession at large. The young body began its career under somewhat favourable auspices, and its president and secretaries, with one or two more members, have been attentive to the interests they represent. The members at large, however, instead of shewing an increased interest, have been growing more careless, and at each successive meeting have been dropping off in their attendance.



The apathy that killed the first-formed Institute of Architects in this city bears a close resemblance to the apathy that has almost strangled the revived Institute, and a similar apathy would seem to be taking hold of the members of the new or younger body. Hard words would, perhaps, be useless; but we cannot help saying that the conduct evidenced by many of the members of the young association is simply humiliating, if not actually disgraceful.

One or two or a few members cannot be expected to devote their whole time and energies, and meet with a cold and half-hearted response. The life-blood of an association is earnestness and industry, and constant attendance on the part of its members. If the association has faults, or weakness in its organization and management, let them be known by all means, and remedied. Fault-finders, we know, are generally those who do nothing, and endeavour to make others imitate them. As far as we can see, there is not one difficulty in the way of making the Architectural Association of Ireland a really representative and useful body. If members will not attend when they can attend, we say they care very little for the interests of their profession. Minding one's own private business is very good and right in its way, but the lack of brotherhood and professional spirit is no small evil, and it is an evil which in Ireland heretofore has worked sad results to architectural practice.

No doubt, there are some members of the Architectural Association who, from their own selfish standpoint, do not see the use of exerting themselves, or putting themselves to any inconvenience, by attending the meetings of that body. They have obtained, or are obtaining, a lucrative practice, and they begin to think that a less frequent attendance on their part will enhance their value when they do condescend to pay their body a visit. The mere money subscription of a membership is not sufficient to sustain any association, for no matter how large may be the numbers of a body, it cannot very long exist if it continues to show no beneficial results from its existence. The very members whose indolence may have contributed to its fall, will be the first to cry out against its reticence, and cease to be members.

We have done our best for years to assist the just aims of the profession in this city, and to represent and earnestly advocate its interests, and we have often had to deplore a lukewarmness of spirit as painful to us as it has been humiliating. Let there be an end to this apathy, in God's name, and henceforth let every member try to do whatever lies in his power to make the body of which he is a member not only a truly representative association, but a power in the land. Above all, let an example be shewn to the younger members of the profession, and assistance given to them in their studies by the elders, and a few years will show the beneficial results in the elevation of the entire profession to the respectable position it should occupy in this country.

### TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville.*

The neighbourhood of Upper Rutland-street has lately been infested by some obnoxious vermin of the rowdy class, who look upon destruction of property in that vicinity as an exquisitely comic piece of business; and the latest shape which the humour of the Rutland rowdyana has taken is the defacing of a hall-door in the above-named street. The door in question appeared to have been smeared over with potash which had been mixed with some filthy substance. Of course the rascally parties who played this disgusting trick were not captured, and are now entirely safe, as the scrutiny that would cheerfully attack a needle in a haystack would fall paralyzed before a search for them.

But, as often enquired, "Where are," where

were "the police?" The enquiry is hardly necessary, for the guardians of the public are sure to be found snugly ensconced in the kitchen of some affluent ratepayer, and perchance devouring the cold mutton of the great taxed. While this sort of thing goes on, the pickled rod of justice will slumber in its briny steep; and more's the pity.

The milkman has been shamefully calumniated, it seems; for has he not been repeatedly accused of using plaster of Paris, chalk, and calves' brains, and such-like deleterious ingredients that but convert the can of the milk vendor into a sort of whitened sepulchre to hold the poor remains of milk—remains upon which the verdict of even a Welsh jury would naturally be—"Found drowned?"

Many a libellous tale has been told of the dairyman; for it turns out, after all, that, except in the "deluge" case,\* the adulteration consists of water, the proportion of which seldom exceeds one-third. Notwithstanding the fact that water is harmless enough, we ought to be thankful to the milkman for his extreme moderation in its use; and, provided it be not culled from the limpid Liffey, you could not have a more harmless or a more agreeable adulteration. So that the article which it has been the special amusement of fashionable tea tables to blacken as much as possible, has come almost milk-white out of the rigid analysis to which it has lately been subjected in almost all parts of the empire. With that third of water the milkman has washed his hands out of all the filth that he has been falsely accused of dealing in. However, be that as it may. I do not at all see why milk should always be condemned to meet a watery grave; for, if one-third of every quart of milk we buy has been borrowed from the pump, it is almost tantamount to paying for one's water-rates twice over. In short, why shouldn't the Corporation be able to lay on a service of milk to our houses? It might almost be done through the present water-pipes, and would enable us to entirely dispense with milk baronets, dairymen, and all such nuisances.

There is nothing like tracing abuses to their native source; and I trust that, having in this instance discovered it to be a water source, the abuse will, like the water which enters so largely into its composition, eventually find its own level. And, notwithstanding the opinions of all the bellowing bulls of Bashan that ever bawled, I certainly think that "Simpson," like a friend of mine who is in the brimstone line, is not half as black as he's painted.

The tradespeople are already commencing to decorate their shops in anticipation of the approaching summer; and, although the weather has been dry lately, the town may be said to be almost wet with paint. Ladders, taller even than the metaphorical one of life, obstruct the thoroughfares in all directions. Dublin has, in fact, been turned into one great exhibition of painting. I pity the ladies, with their voluminous dresses, who are, no doubt, seriously inconvenienced by the daubing mania. Lured by the gay attraction of "Forrest's" or "Switzer's," it is not always that they pay attention to the placard at the door, and sad and ruinous in many instances have been the consequences, because their impulsive admiration could not be warned in time to "beware of the paint"; many a dark serge has returned home so harlequinaded in effect that the milliner would be sorely puzzled to recognize the emanation of her genius again; after such a polychromatic metamorphosis it would require a clever *modiste* to know her own work. The colours are "fast" enough, but it has been found on experiment that they will not wash. This description of art may be beneficial to trade, but many a poor husband has lost his appetite for tea when the experiment has been made known to him; such husbands must be

\* I refer to that of Mr. Flood.

of the class of fogies who have no eyes for pictorial effect, and whose unpoetical nostrils prefer the fragrance of "rappee" and "Prince's Mixtures" to that of "turps" and "dryers." But it is not for such that Dublin assumes her summer attire; though certainly if she performed her toilette a little less publicly, and painted a trifle less, paternalists might be saved an enormous amount of trouble, profanity, and expense.

The country has been ordered for ladies who require a little fresh colour. This is, however, a mistake, as she should visit town at this time of year, and I'll warrant she will get more colour in half an hour than the healthiest rural district could give her in a century.

OLYMPUS.

### BOOKS RECEIVED.

*Historical Sketch of the Most Illustrious Order of St. Patrick.* R. Turner, Fine Art Publisher, Newcastle-on-Tyne, and London.

This sketch is introductory to the subject of the great picture by M. Angelo Hayes, R.H.A. It is a very fairly written and interesting narrative of the origin and subsequent history to the present of the Order of St. Patrick. An account of the installation of His Royal Highness the Prince of Wales as a Knight of the Order, at St. Patrick's Cathedral, in 1868, is given; and a "key to the picture," by which all the figures—numbering upwards of 140—in the great picture may be readily recognised. Apart from this national picture, Mr. Turner, of Newcastle-on-Tyne, deserves commendation and patronage for his efforts to place in the hands of all lovers of art engraved copies of many really historical national paintings.

### THE MAGAZINES.

The *Gentleman's Magazine* for this month has a number of capital articles, among which are contributions by Mr. Hepworth Dixon, formerly editor of the *Athenaeum*, and Mr. Archibald Forbes, late war correspondent to the *Daily News* during the Franco-Prussian struggle, and for some time editor of a discontinued newspaper entitled the *London Scotsman*. Mr. Francillon's "Olympia," and Mr. Hatton's "Clytie," the serial stories, are continued, and are very attractive. This month's *Macmillan* has several interesting and very readable papers, among which are "Coal and Coal Plants," "The Prince Printers of Italy," and "Castle Daly," an Irish story, well written, and seemingly by a new writer. *Cassell's Magazine* supplies several good papers; among the most notable are "Reminiscences of a Tipperary Assize," "Half-hours with Nature," "Frost and Snow," and "Poverty Pastimes."

### GRAND ORATORIO, "ST. PATRICK AT TARA."

THE Grand National Oratorio by Professor Glover of this city is announced for performance on Monday evening in the Large Concert Hall, Exhibition Palace. Several distinguished professionals will give their services on this occasion. Mr. Horan will preside at the grand organ, and a military band will aid the orchestra in the "Grand March of Tara." We perceive that the worthy professor has been able to secure the patronage of Vice-royalty on this occasion.

A DUBLIN NONAGENARIAN.—Mr. John Barton, long well known in this city, recently died at a very advanced age. His death took place at his residence, Stone House, Booterstown. According to one of our contemporaries, Mr. Barton, who was in his 92nd year, and always up to the last an active person and a leading man of business, came to Ireland as a lad of 13, in 1785; in 1798, was in the Volunteer Corps of the Linen Hall, and has been actively connected with the mercantile interests of Dublin ever since. He was a director of the Dublin and Kingstown Railway during its construction. He became a director of the Bank of Ireland in 1836; was governor in 1853-4, and retired from its directorship last year, after 37 years' service—perhaps the only instance of an entirely voluntary retirement from the board, to make way for younger men. He continued director of some public boards, and attended their meetings up to within the last few weeks.



## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

## GANDON-STREET.

IF it were only for the sake of one noted resident, this street calls for some notice. Once most respectable, but now long decaying, Gandon-street is spoken slightly of, and many of our citizens forget, as they pass through it, that its pavements once echoed with aristocratic equipages, and that the carriages of lawyers, merchants, and other well-to-do citizens were here an ordinary sight. Times have sadly changed: single proprietors have given place to tenement owners, and where the rent was formerly paid by a cheque upon La Tonche's or Newcomen's banks, it is now called for sharply by the lynx-eyed weekly collector. This street was nearly altogether a private one previous to the Union, and for many years subsequent to the Union; and up till about thirty years since it struggled hard to keep up appearances, but the fates were against it. It could boast at one time of noted academies, teachers, professors of dancing, and doctors of music. Here lived both lady and gentleman teachers of the old harpsichord, the old pianoforte and the new, the old native harp and the modern-improved. Gandon-street could also reckon among its residents makers of musical instruments, and artists and architects, who have left their impress upon the mind of their age and country. The "Oldest Inhabitant" will briefly tell what is worth remembering of this once homely quarter.

"My recollections, sir, of this quarter are, like my recollections of some other places, fading fastly, but there are a few names and particulars that have not escaped my memory. I know this street principally as the residence of the celebrated James Gandon, who, though not an Irishman by birth, was *par excellence* our greatest adopted architect, and to whom this city owes a debt of gratitude that ought to have found an embodiment long since in a public testimonial to his memory. James Gandon lived for some years at No. 7 in this street—that house yonder, sir, with an angular pediment over its hall-door, and some excellent stone carving on its jambs; but I think that, previous to this, the premises he occupied stood on that part of the street where Mabbot-street opens into Gloucester-street. The opening of the former street into the latter many years ago has, among others, also removed the great architect's first residence here. In the same house it has been stated that the celebrated Misses Gunning were born, some account of whom will be found in Sir Robert Walpole's Anecdotes. When the architect left the city he removed to a villa at Lucan, where he resided for some time. On his return he went to 39 Upper Gloucester-street, where he continued until his death, which took place in 1823, at the ripe old age of 83. Some years ago, sir, I visited the grave of the architect in the village churchyard of Drumcondra, and subsequent to my visit I had a talk with the worthy old parish clerk, who was a schoolmaster and postmaster—at least he filled these offices in the course of his life, and two, if not more, of them at the same time. This village worthy, who is for some time deceased, told me that the day of Gandon's burial was a very rainy one, and an incident occurred at the burial which left an impression upon his mind. The heavy slab which covered the grave of the antiquary, Grose, in which Gandon was to be laid, had been removed, and was lying upon the moist clay; while the grave attendants were bustling about, the heavy slab slipped off the wet loose clay, and rolled in upon the coffin in the bottom of the grave, smashing it in and injuring the skull of the occupant. An inscription on the slab tells of the age and date of burial of Grose (1791), but, to the shame of the architects of this city, not one line has ever been added to say 'Here also lies the remains of James Gandon, architect.'

"I often wondered, sir, that the life of Gandon remained so long unwritten. It was

not, I think, until about 1845 that any justice was done to his memory, when the life of the architect appeared from the pen of the late Thomas J. Mulvany, R.H.A. The volume is interesting, but it might have been more comprehensive. I wish, sir, some literary citizen would give us even a similar volume of the life and works of Francis Johnston. Some materials, I believe, are amassed for the purpose by a gentleman of this city, a great lover of the works and ways of our old architects. Between fifteen and twenty years ago a young Dublin carpenter (since a London journalist), a lover of Gandon and his works, wrote a poem entitled "Falling Moulds," in which he satirised modern architectural practices. The opening verse of the poem, I remember, began thus:—

"The prophet dies; yet still his words outlast like fires immortal—  
So Gandon's genius shines to-day from portico and portal!  
But Gandon's dead and buried long, where soft suburban moisture  
Has melted down to mould that heart which hated art imposture.  
And, though his works and genius are with Irish pride regarded,  
Still no humble cenotaph his memory is awarded.  
This cold neglect of him, to-day, is not a kind neglecture  
From that old City once he crowned a Queen of Architecture."

"James Gandon, sir, although a great man of ability in his profession, added very little, as far as I know, to the literature of his art. He wrote an essay on the progress of architecture in Ireland, which is an interesting contribution, coming from such a man; but his efforts with the pencil far exceeded those of the pen, and it is by his works in stone that his genius must be measured, and his fame will not suffer by the strictest scrutiny of them. It must never be forgotten, also, that it was through Gandon's discrimination and patronage that Edward Smyth, our native and much-neglected sculptor, was assisted to live and practise in his native land.

"This street we are now walking was also the residence for several years of Henry Aaron Baker, who found in James Gandon a sincere friend. When Gandon thought upon retiring in 1808 from his public position in this city, he recommended Mr. Baker to the authorities as one worthy to succeed him. Henry A. Baker lived at 112 in this street, and was in frequent intercourse with the great architect. I do not know whether there are any relatives or direct descendants of Mr. Gandon at present in this country. All I know is, that he left a son and two daughters provided for at his death. Mr. Baker had some family—one of his sons was a Lieutenant in the Navy, and another a clergyman. For several years Henry Baker was a master of the School of Architecture in the Dublin Society; he was also City Architect, and had to do with the prisons and other public institutions; he was also architect to the Lying-In Hospital. At the close of the last century, John Gore, a member of the Irish Parliament, lived in this street; and among the barristers and attorneys was John Robnet, who was called to the Bar as far back as 1754.

"Some people suppose that until far advanced in the present century the most of our paper, type, printing ink, and other printing materials, came from the continent or from England. That is a mistake, sir, for there were plenty of printing materials produced in this city. It is curious to find in this private street in 1786 there was one 'Edward Stacy, printing ink manufacturer' living at 31. Early in the present century Francis Patterson, Judge Advocate-General, had his office at 3 in this street, where it continued for a number of years. Lady Meredyth lived at 11; Baron Richards, the son of an attorney, occupied 12; and Samuel Morland, a well-known pianoforte maker, lived for a number of years at 63.

"At 32 in this street lived for some years the celebrated William Mossop, previously of 13 Essex-quay. Mossop was not only a simple 'letter cutter and die-sinker,' but he was a good artist and seal engraver, and the medals he struck in this city were many and valuable, but they are now somewhat rare. He

was also the patentee of a press for striking medals, and author of several novel inventions. With the first monthly number of the *Anthologia Hibernica* for 1793 engraved plates of one of Mossop's medals are given, having on one side the head of 'Richard Robinson, Baron Rokeby, Lord Primate of all Ireland,' and on the reverse side the south front of the Observatory of Armagh, erected by his grace, with the motto 'The Heavens declare the glory of God,' MDCCCLXXXIX. I believe this same Primate was one of the first patrons of Francis Johnston, the architect, who was a native of Armagh, and had early attracted the prelate's attention through his ability. William Mossop was not treated very well, nor did he receive that amount of encouragement from our citizens that his undoubted genius and talent deserved. His son, who possessed a portion of the genius of his father, has left us an account of his parent's transactions, and a portion of this narrative is given in Mr. Gilbert's 'History of Dublin.'

"No. 34, sir, a fine double-fronted house, the old alms-house and charity school of the parish of St. Thomas, was, as the inscription over the entrance states, 'Built in the year of our Lord 1768. Rev. John Jebb, D.D., Rector; P. H. Talbot and John Smyth, Esqrs., Churchwardens. The late Mr. Philip Ramsay, of Drogheda-street, in said Parish, left the sum of Five Hundred Pounds towards this most excellent and useful charity.' (The Drogheda-street mentioned on the tablet existed on the site of Lower Sackville-street.) A house in the rear was set apart for the poor widows of the parish, the front house being for the female orphans. The trustees have, I understand, sir, recently leased the house and premises, which are now set in tenements. The schools have been removed to Lower Rutland-street—a somewhat healthier locality. Besides the sum left by Mr. Ramsay, other large sums have been invested in Government stock, the interest on which is devoted to the support of the orphans.

"Between 1800 and 1820 several professors and teachers of music, and an odd maker or two of musical instruments lived here, and the suburban end of the street had some builders' and marble masons' yards, carried on by men who afterwards made a name and amassed a fortune by the pursuit of their business, but which they transferred to other parts of the city before they resigned. The old race of table-beer brewers, for which this city was once noted, before the English and Scotch fancy ales came into fashion, had a representative in this street in the person of Fitzpatrick, who lived early in the century at 105. Edward Hamerton, a well-known public notary, lived at 3; and at different periods, scattered up and down the street, there were a number of persons connected with the law. I went through several of the houses at the city end of the street some years since, and I found that, though in plan they were old, they were well built, and the materials composing them were of the best description.

"The aspect of Gandon-street now, sir, is woe-begone indeed. You can see that it is nothing but tenements here, tenements there, tenements everywhere, and corporate sanitary neglect. I had hoped at one time that this street would have maintained its respectable, quiet, homely, and retired character, but for the last thirty years it has been a day older and a day worse with poor Gandon-street.

"Since 1840 there is little worth relating in connection with this street. I have walked through, often with a sigh, and feelings too strong for utterance. It boasts, to be sure, of no great public institutions or buildings in stone to perpetuate the fames of their builders, but it has been the residence of architects and artists and other men whom our posterity if they possess true honour and native pride, will not willingly allow to fade from the nation's memory."

Thus closed the remarks of our cicerone, and turning into Tyrone-street, we shook hands, and parted with the "Oldest Inhabitant."



## PUBLIC RIGHTS AND PUBLIC NUISANCES.

In our last issue, in a notice we gave of a new volume entitled "A Manual of Public Health," we described it as a very useful volume, but one at the same time that will need constant revisions and additions; it is a volume which we would like to see in the hands of every intelligent citizen and ratepayer. In the remarks we are now about to offer we will make use of some of the information contained in this manual, in conjunction with our own observations.

There are many things which are undoubtedly nuisances which as yet are not actionable, and there are several actionable nuisances which are believed to be by the great majority of the public not nuisances at all. A corporation or a local board, although it may be a board of health and a nuisance authority, yet from its neglect of its duties may itself be a positive nuisance to the general public. A nuisance at common law is anything that infringes on or curtails the powers, rights, or privileges of anyone. To block up or diminish the light of any window which long usage has secured to the user, is both an unjust obstruction and a nuisance. It is also a nuisance to pollute the air we breathe, the water we drink, or that which flows through any stream used. No matter whether water flows through private lands before it has reached the dwellers in towns, if once there has been established a public right to use this water by the inhabitants, the landowner through whose fields or other property this stream flows can be compelled to keep it free from pollution. A landowner or manufacturer may collect a large body of water on his grounds for his own pleasure or use, but he must not let any portion of this water escape to the damage of any other person's property or holding; if he does, he creates a nuisance, and can be proceeded against for damages. Nuisances may be and are created by the keeping of beasts, stagnant water, filth, or other matter in such a manner that their existence through a neglect may endanger the public health. If a railway bridge, aqueduct, or other platform over the public way is allowed to collect water, and that this water drips on the passengers below, as it lessens the use and enjoyment of the way to the passers-by it becomes a nuisance, as it is clearly actionable, although not directly injurious to the public health. A water spout or projecting boarding may be and is for the same reason a nuisance, if it obstructs the public way, and casts water upon the passers-by.

Although in the strict reading of our sanitary Acts these last-named nuisances are not directly named, yet they are nuisances notwithstanding, and are actionable at common law. Nuisances, however, are nearly the same everywhere; but the mode of redress or proceeding to remove or remedy them differs according to circumstances. If a nuisance affects only a private individual in his private capacity, his remedy will be a private one by action for damages, joined to a demand for an injunction to restrain its commission or continuance in future. The nuisance, however, may become one of a public character, affecting the mass of the community, when an indictment is preferred at common law, and subsequently steps may be taken to obtain an injunction.

Confining the subject, however, to the sanitary Acts, there are several matters which are more or less directly or indirectly injurious to the public health, and to remove these nuisances various summary proceedings have to be taken, in accordance with the provisions of the several Acts under which an urban or rural sanitary or other authority obtains its powers.

We would ask the particular attention of our citizens and ratepayers to what we are now about stating, for it is indispensably necessary that they should know their public rights, and uphold them. It is by the

authority of the common law that injunctions are and can be obtained against local sanitary authorities in various parts, restraining them from pouring into streams or rivers the sewage or sullage of the towns and cities over whose health they are the appointed guardians. And be it known that some of these bodies, in attempting to remove the nuisances at their doors, have committed the most monstrous, dangerous, and wide-spread injury in polluting one of the most essential, if not the main requisites, of health, and bringing scandal and deep discredit on all sanitary operations.

A nuisance under the Nuisances Removal Acts includes any premises kept in such a state as to be injurious to the public health; any pool, ditch, gutter, water-course, privy, urinal, cesspool, drain, ashpit, or similar receptacles in filthy and foul condition, any animal kept upon premises in an uncleanly manner, or any accumulation or deposit which is a nuisance, and therefore injurious to the neighbourhood or the public health. There is a provision made in respect to deposits or materials intended for manufacturing uses; such deposits will not be considered a nuisance or punishable if it be clearly shown to the satisfaction of the magistrates or justices that such deposits have not been kept longer than necessary for the purpose of business or manufacture, and that the best available means have been or are taken for protecting the public from injury to health thereby.

By the Sanitary Act of 1866, the definition in respect to the above nuisances was further extended to mean any house, or part of a house, so overcrowded as to be dangerous or prejudicial to the health of the inmates. A factory, workshop, or other room used by workpeople, which is not already under the operation of any general Act for the regulation of factories or bake-houses, must, nevertheless, be kept clean and well ventilated; and care must be taken that all gases, vapours, dust, or other impurities arising, likely to be injurious to the public health, shall be rendered harmless; and overcrowding must also, in such places, be obviated, or else it will constitute an actionable nuisance.

All fire-places and furnaces in such factories must also, as far as practicable, be made to consume their own smoke, arising from the combustibles used.

It is the duty of the sanitary authorities of the district to pay proper attention to any breaches of the Act where engines are worked by steam, or in mills, dye-houses, breweries, bake-houses, gas works; in fact, at all manufactures where trade processes are carried on, and where nuisances may arise through fumes or refuse matters not being properly disposed of. Provision is made for the protection of manufacturers who may be indicted for not consuming injurious smoke. If it can be clearly shown that a manufacturer has used every precaution to render his trade harmless, and consumed his smoke as far as it was practicable, the Act will not be enforced against him. The smoke nuisance, however, will have to be gradually got rid of; and new methods will, we dare say, be introduced in time that will remove the difficulty in respect to this matter.

There are a number of indirect nuisances from which the public suffer, as well as direct ones, such as unwholesome food. Blackstone, the great law authority, designated a nuisance—all offences against the public order and economical regimen of the State, being either the doing of a thing to the annoyance of all the king's subjects, or the neglecting to do a thing which the common good requires.

We stop here for to-day, but in the interest of the common-weal we will resume the subject, that all may clearly understand what are nuisances and what are not. It is well that the public as a body should understand their rights, and uphold them; and this can only be effectually done by the same public insisting on the due fulfilment of their duties on the part of sanitary authorities, in pursuance of the laws provided for the preservation of the public health.

## THE RUIN AND RE-BUILDING OF NATIONS.

[Being Extracts, with Notes, from "An Essay towards Preventing the Ruin of Great Britain," by George Berkeley, Bishop of Cloyne. First printed in London, A.D. MDCCXXI.]

WE continue the extracts from George Berkeley's Essay, and we would ask attention to them, for we think it will occur to many that some of his ideas have been given to the world of late years by men who had not the common honesty to acknowledge the source of their indebtedness.

"As industry dependeth on trade, and this, as well as the public security, upon our navigation, it concerneth the legislature to provide that the number of our sailors do not decrease, to which it would very much conduce if a law were made prohibiting the payment of sailors in foreign ports, for it is usual with those on board merchantmen, as soon as they put their foot on shore, to receive their pay, which is soon spent in riotous living; and, when they have emptied their pockets, the temptation of a pistole present money never faileth to draw them into any foreign service. To this (if I may credit the information I have had from some English factors abroad) it is chiefly owing that the Venetians, Spaniards, and others, have so many English on board their ships. Some merchants, indeed, and masters of vessels, may make a profit in defrauding these poor wretches when they pay them in strange coin (which, I am assured, often amounts to twelve pence in the crown), as well as ridding themselves of the charge of keeping them while they sell their ships or stay long in the port, but the public lose both the money and the men, who, if their arrears were to be cleared at home, would be sure to return and spend them in their own country. It is a shame this abuse should not be remedied."

[Although a complete revolution has taken place in seafaring matters since the days of Berkeley, yet many abuses are still continued in connection with our ships and sailors. Sailors in merchantmen are now bound for the outward and homeward voyage, yet they often desert abroad, and forfeit their wages. It is to be hoped that the reform lately set on foot by Mr. Plimsoll, the member for Derby, will result in a complete success, for, undoubtedly, our sailors are themselves the victims to rascally conspiracies on the part of owners of vessels, who send them out to sea in an unseaworthy state, first insuring them well, and often hoping and confident that they will go down at sea. Among our shipowners are some of the most consummate scoundrels on God's earth, who would sacrifice sailor life to any extent for the purpose of getting the insurance money. Every nation is dependent to a large extent to its commerce, and it is absolutely necessary that the abuses connected with our navigation should be reformed as soon as possible.]

"Frugality of manner is the nourishment and strength of bodies public. It is by that which they grow and subsist until corrupted by luxury, the natural cause of their decay and ruin. Of this we have examples in the Persians, Lacedæmonians, and Romans, not to mention many later governments, which have sprung up, continued awhile, and perished by the same natural causes. But these are, it seems, of no use to us; and, in spite of them, we are in a fair way of becoming ourselves another useless example to future ages."

"Men are apt to measure national prosperity by riches. It would be righter to measure it by the use that is made of them. Where they promote honest commerce among men, and are motives to industry and virtue, they are, without doubt, of great advantage; but where they are made (as often happens) an instrument to luxury, they enervate and dispirit the bravest people. So just is that remark of Machiavel, that there is no truth in the common saying 'Money is the nerves of war,' though we may subsist tolerably for a time among corrupt neighbours, yet if ever we have to do with a hardy, temperate, reli-



gious sort of men, we shall find to our cost that all our riches are but a poor exchange for that simplicity of manner which we despise in our ancestors. This sole advantage hath been the main support of all the republics that have made a figure in the world, and perhaps it might be no ill policy in a kingdom to form itself upon the manners of a republic."

[Money is, and always will be, indispensable to carry on war, but money will not buy courage, though it may purchase any amount of hirelings. A nation requires for its defenders exactly what Berkeley describes: "A hardy, temperate, religious sort of men;" and certainly this class of men are sparse of late years. It may be, at a not very remote date, that all the nations of the world will be formed upon the manners of the olden republics as far as these manners are compatible with the times. Good constitutional republics are possible, but none of our modern ones have been successful. Even in the instance of America great abuses exist, but then it is not a model republic, and frugality of manners is not studied in the United States no more than nearer home.]

"Simplicity of manners may be more easily preserved in a republic than in a monarchy; but, if once lost, may be sooner recovered in a monarchy, the example of a Court being of great efficacy either to reform or corrupt a people; that alone were sufficient to discountenance the wearing of gold or silver either in cloths or equipage; and if the same were prohibited by law, the saving of so much bullion would be the smallest of such an institution, there being nothing more apt to debase the good, the virtue, and good sense of our gentry of both sexes than the trifling vanity of apparel which we have learned from France, and which had such visible ill consequences on the genius of that people. Wiser nations have made it their care to shut out this folly by severe laws and penalties, and its spreading among us can forebode no good, if there be any truth in the observation of one of the ancients, that the direct way to ruin is to dress up in fine clothes."

[Truly, if the worthy prelate could see not only the gentry, but the commonalty, to-day, and the manner in which they dress, he would be astounded, indeed. We like to see persons of both sexes well dressed—that is, comfortably and plainly dressed; but we view with feelings of disgust the manner in which a large body of the females of the present day are clothed. There are sinners, too, on the male side, in the person of shallow-minded fops; but the female element of to-day have exceeded not only decency in the matter of dress, but have put virtue and morality to rout. Like mistress, like maid; our servants are following the pernicious example, and the fruits are to be found in our streets and our "Refuges." It were idle, perhaps, to denounce the scandal; what the prophet failed to effect some thousands of years ago, we may well fail to effect to-day. The nuisance will run its allotted cycles; shame will succeed sinful luxury; homes will be broken up, and wretchedness, deep and painful, will follow; but still the many examples will not deter others from the temptation to dress beyond their means, and to gratify their inordinate tastes and passions.]

"It cannot be denied that luxury of dress giveth a light behaviour to our women, which may pass for a small offence because it is a common one, but is in truth the source of great corruptions. For this very offence the prophet Isaiah denounced a severe judgment against the ladies of his time. I shall give the passage at length. 'Moreover, the Lord saith, Because the daughters of Zion are haughty, and walk with stretched-forth necks, and wanton eyes, walking, and mincing as they go, and making a tinkling with their feet: therefore the Lord will smite with a scab the crown of the head of the daughters of Zion, and the Lord will discover their secret parts. In that day the Lord will take away the bravery of their tinkling ornaments about their feet, and their cauls, and their round tires like the moon, the chains, and the bracelets, and the mufflers, the bonnets,

and the ornaments of the legs, and the headbands, and the tablets, and the ear-rings, the rings, and nose jewels, the changeable suits of apparel, and the mantles, and the wimples, and the crisping-pins, the glasses, and the fine linen, and the hoods, and the veils. And it shall come to pass, that instead of a sweet smell, there shall be a stink; and instead of a girdle, a rent; and instead of well set-hair, baldness; and instead of a stomacher, a girding of sackcloth; and burning instead of beauty.' The scab, the stench, and the burning, are terrible pestilential symptoms; and our ladies would do well to consider they may chance to resemble those of Zion in their punishment as well as their offence."

[Berkeley's quotation from the Book of Isaiah is to the point, and more to the point to-day than in his day. With what wonderful foresight and fidelity the prophet's words were uttered! One would imagine that he was looking upon one of the damsels walking in Mayfair, London, or Sackville-street or Grafton-street, Dublin. Who cannot to-day see the stretched-forth necks and the Grecian bends, the high and narrow-heeled boots, the tinkling buckles, the hoops like the moon, the glasses and bracelets, the hoods and panniers, the veils and flounces, the bustles and chignons, the muffs and cuffs, the half-naked heads and bosoms, and the short dresses, and the thousand and one other abominations with which morbid human nature craves to adorn itself? Such habits, some people will say, "is all for the good of trade;" but what is pernicious can never be good, though it may be of a temporary benefit. Luxury is a vice; and the luxury to which dress is carried now-a-days is a frightful evil—an evil that leads to the corruption of the humble, and to the sapping of the foundations of purity and honesty. By all means let us encourage useful manufactures, and dress our men and women in a respectful manner, but let us not allow fashion to corrupt us, and pave the way to national effeminacy and ruin.]

(To be continued.)

#### THE KILKENNY MUNICIPAL ARCHIVES.

THE following is the concluding portion of the proceedings at quarterly meeting of the Royal Historical and Archaeological Association of Ireland, for which we could make no room in our last issue:—

Mr. Watters exhibited and illustrated several old documents from the municipal archives in his charge as Town Clerk. They were:—

1. A grant from Gilbert de Clare, Earl of Gloucester and Hereford, to the Friars Preachers of Kilkenny, of an annual rent, exemption from toll for grinding their corn at his mill; and also privilege to grind their corn there before all others, except that of the Earl, or that which might be at the moment on the millstone. Dated in the year of grace, 1274. A small black seal pendant, with the arms of de Clare, is still attached. This deed measures only 6 inches by 3.

2. A grant from Stephen de Axburge, to Walter, Earl of Pembroke, of a message, with the appurtenances, near the cemetery of the Brothers Preachers of the Holy Trinity, Kilkenny. David Basset, Seneschal of Leinster, is one of the witnesses. There is no date, but it is supposed to be about A.D. 1250.

3. A grant from Adam de Leye to the Brothers Preachers of Kilkenny, of the area in which St. Canice's Well stands—for the salvation of his soul, and his father's and mother's and friends'—as fully as he held it from the bishop. No date, but the document is probably late in the 12th or early in the 13th century. These two latter deeds are equally minute in the writing as the first.

4. A grant of certain lands, by Robert de Malinsbury, in or near Danmore, described as "near the lands of the Earl of Gloucester." The rent appears to be reserved to William Drubill, who was Constable of the Castle of Kilkenny in the year 1310.

Mr. Watters said he looked on the next two documents as particularly interesting. At a meeting of this Society held in July, 1849, an interesting paper was read by Mr. Prim, relative to the establishment of a Colony of Flemish mechanics in Kilkenny, who had been invited over by the Lord of the Liberty for the advancement of the arts and the improvement of trade, and stating that they inhabited a suburb of the town separately walled, called Flemingstown, and that this locality was in the neighbourhood of the Castle, and that the probable situation of the gate was where Switsir's Asylum now stands, and that the colony extended along towards the black quarry. After the lapse of centuries, when the names of places have been long since altered, and the external appearances metamorphosed by the various changes which take place, it is often difficult to realize what a place originally was, so that every evidence to prove its original state is of use. He (Mr. Watters) had now an opportunity of adding a proof, if such were wanting, to the authenticity of Mr. Prim's paper, by the production of two original grants made of premises described as being in "Villa Flandrensius," and defining the locality where it was situate. The documents were as follows:—

5. A feoffment from Adam Fitz-Henry, Girdeler, to William Hasse, of two messuages in the town of the Flemings, near Kilkenny (in Villa Flandrensius juxta Kilkenny), situate near the highway leading towards the "mill of the town of the Flemings" and the water called "le Noer." Dated 6th Henry IV. (1405). One of the witnesses to this deed is Richard Talbot, a near relative of Robert Talbot, who built the walls round Kilkenny in the year 1400.

6. A grant from Patricius Trompp and Tibina Querton to Jacobus Nangyll, of a messuage in the town of the Flemings. These premises are described as near the mill of the Earl of Ormonde, and the highway which leads towards the Castle of Kilkenny. By an endorsement on this deed the grantee, James Nangyll, appears to have sold his interest in the premises, which was to be applied to the sustentation of the altar of St. Peter, in the Church of the Blessed Virgin of Kilkenny, in pure and perpetual alms. This deed is dated 19th July, in the 2nd year of Henry VII. (1487). The endorsement is dated 5th August, 1505.

The foregoing deeds are in wonderfully good preservation, considering their antiquity; the writing is beautiful, but very minute, and all in contracted Latin—not easy to read. The meeting expressed its warmest thanks to Mr. Watters for the very interesting matters which he had provided for them.

Amongst the papers brought before the meeting were the following:—

"Loca Patriciana"—Part V.: by the Rev. John F. Shearman, C.C., Howth.

"On the Antiquities of Devenish, County Fermanagh:" by W. F. Wakeman, Esq., Enniskillen.

"Iniscathy, since the 12th Century:" by the Rev. S. Malone.

"On some Ancient Churches near Lisdoonvarna, County Clare:" by Dr. Martin, Portlaw.

"Notice of Ancient Carved Oak Figures in Fethard Sacristy:" by Rev. J. W. Cantwell, and Dr. W. McCarthy, Fethard, County Tipperary (accompanied by a photograph).

"On an Ancient Bronze Cauldron, found in a turf bog at Cape Castle, between Arnoy and Ballycastle, County Antrim:" by George Langtry, Esq., Belfast (accompanied by a photograph).

"On Ancient Grotesque Figures (Shielanagigs) carved on Dunamon and Tullavin Castles; and a curious piece of sculpture in Manister Abbey, County Limerick:" by Henri Norman, Esq., Rathkeale (accompanied by drawings).

The usual vote of thanks having been passed, on the motion of Dr. James, seconded by the Rev. N. R. Brunskill, to donors and exhibitors, the Association adjourned till the 1st Wednesday in April.



## ARCHITECTURAL EDUCATION.

*First Player*—"I hope we have reformed that indifferently with us, sir."  
*Hamlet*—"O, reform it altogether."

HAMLET, Act iii.

EXISTING institutions—whether social, political, or religious—are in the present age relentlessly assailed by the spirit of criticism; they are "weighed in the balance," and, if found wanting, condemned accordingly. The present system of architectural education, failing as it does to fulfil its object, cannot continue long without being revised and remodelled. Already it has received a good share of criticism, and, if its defects are not known to the public, they are apparent to all in the profession. That reform is needed, most persons admit; but when or by whom this reform is to be effected, remains an open question. There are some who maintain that the present system suits very well, and they point in triumph to eminent men at present in the ranks of architects of whom we might well be proud; but let me also ask in what other profession are to be found so many incompetent men of whom it would be ashamed? The best men will undoubtedly come to the front; no matter how imperfect the system of training, talent, as long as it is sustained by energy, will show itself: it has been so in all ages, but who can tell through what toil and difficulties this talent has had to come before it was recognized? The eminent men we have amongst us have attained their present position, not by virtue of the present mode of education, but by inherent aptitude and much self-instruction.

Architects complain on their part of the way pupils neglect their duties, and the indifference they often have to professional matters; in many instances this is too true. It is to be regretted that many enter the profession without any aptitude for it, and quite ignorant of the amount of knowledge to be acquired; and parents are to blame in some instances for wishing their sons to take up what is called a "respectable" calling, under an erroneous idea that other than professional occupations are not respectable—architecture, perhaps, being the one decided upon on account of the facilities for entering it, and there are no examinations to pass, as in many other professions. Many architects, it is true, will not accept a pupil unless he shows some aptitude for art; but this is the exception rather than the rule throughout the profession.

Pupils often enter the profession without any knowledge of it, and, when perhaps half of their pupilage is past, the idea begins to dawn upon them that, unless they devote their leisure time in addition to the time spent in the office, they will know next to nothing of practical matters at the termination of their articles; and accordingly the pupil will henceforth study on his own account to supplement the little knowledge gained in the office, or else, disgusted with everything, be turned out an undeged assistant when his pupilage is ended.

I am aware that some architects consider eight hours a-day not enough for the architectural student to devote to study; ten or even twelve hours is nearer the amount of time required, in their opinion. How far our brethren in the medical profession will agree with them, is extremely doubtful; but, looked at solely regarding the economising of time, the present system of teaching is a miserable failure. Eight hours daily of *proper work and study*, extending over a period of say five years, would be ample time to fit anyone for attaining a knowledge of architecture—sufficient at least to enable him to practise as an architect.

In these days an idea prevails that nothing can be done without night-work—that the architectural student, after being shut up daily in an office, bending over a drawing board, must needs resume his work or study again at night, snatch hours from his sleep, and burn the midnight oil ("the very worst oil," says a rev. gentleman, "that ever was burnt"), and for what end?—to make himself an architect. Can it be expected that the

youth transferred from school to office will take naturally or cheerfully to this way of educating himself for his future career? Human nature rebels against it. We have not far to look for evidence: the small number of pupils who take an interest in our architectural associations, and the still smaller number who attend the classes for instruction and study connected with these associations, is a significant fact. Here we have an attempt to remedy the defective education of the office; and to profit by this means the student must devote his leisure time to the study of such subjects taken up by these classes. The office and the association are two separate things—the one is generally looked upon as the place where he should acquire a knowledge of his profession from a teacher, and the other is a means whereby he may acquire knowledge for himself. If the instruction obtained in the office was sufficient for the pupil, the educational efforts of the associations would not be needed. It seems evident, to improve on the present state of architectural education, we must first exclude all those who do not show any aptitude for the profession; and, secondly, form a proper and systematic course of study for those who have entered the profession. The simplest way of attaining these ends I purpose to show in another article. R. BROWN.

## BELFAST NEW CATHOLIC HALL COMPETITION.

SINCE our last issue, the public have been informed that the Catholic Hall General Committee have selected the plan of Mr. Alexander McAlister, architect, as the one, in their opinion, which is entitled to the first prize, and should be adopted as the plan on which the Hall should be built. The *Ulster Examiner* and other Belfast newspapers, in making the announcement, endorse the wisdom of the selection, and, no doubt, there are a number of the citizens of Belfast who will be pleased at the choice. There is, however, another side to the question, which, we anticipate, will come in for further discussion. A number of the designs for the new hall were submitted, some time since, to the Institute of Architects in this city to report upon. It is to be hoped that they performed their duty honestly: and, if they have done so, then, we say, the action of the Belfast Committee, in finally awarding the highest prize to Mr. McAlister, calls for further explanation.

The Institute, to our mind, is certainly snubbed and shabbily treated, if they have acted with perfect fairness, and if no underhand dealing existed. An honest outsider would naturally say—Why should the Catholic Hall Committee call upon the Institute to report upon the best designs, and then not be bound by their award? Some people hint that the report of the Institute exhibited a piece of gross favouritism; if so, it would be well to know how the judges in the Institute became aware that a Dublin architect was the author of the plan to which they assigned the first place. Was the Dublin competitor a member of the Institute? and was he also one of the judges that reported upon the merits of his own design? We may imagine many strange things in these days; but it would be well for the dignity of the architectural profession that the whole subject of the Catholic Hall Competition were thoroughly ventilated. We have no bias or personal interest in the matter. We hope that the best plan has been selected. If it has, so much the better for the conscience of the Belfast Committee, and so much the worse for the judgment of the judges in the Institute.

A grievous wrong or a grievous mistake has, however, been committed in connection with the competition; and we think a little further ventilation of the subject, on the part of the parties immediately concerned, would be desirable.

## THE SOUTH TRANSEPT, YORK CATHEDRAL.

THE south transept of York Cathedral, built by Archbishop Walter Grey between the years 1227 and 1240, is a fine specimen of the work of that period. The stonework in many parts has been much injured by the weather, and rendered picturesque by age. The restoration of the exterior, in part already begun, will be proceeded with on the completion of the interior, under the direction of Mr. Street. Our illustration is from a sketch taken before the work of restoration was commenced.

## THE WATER SUPPLY OF DUBLIN.\*

AFTER a few preliminary remarks on the former sources of water supply to the city, and the various schemes proposed for an improved supply, Mr. Neville proceeded:—

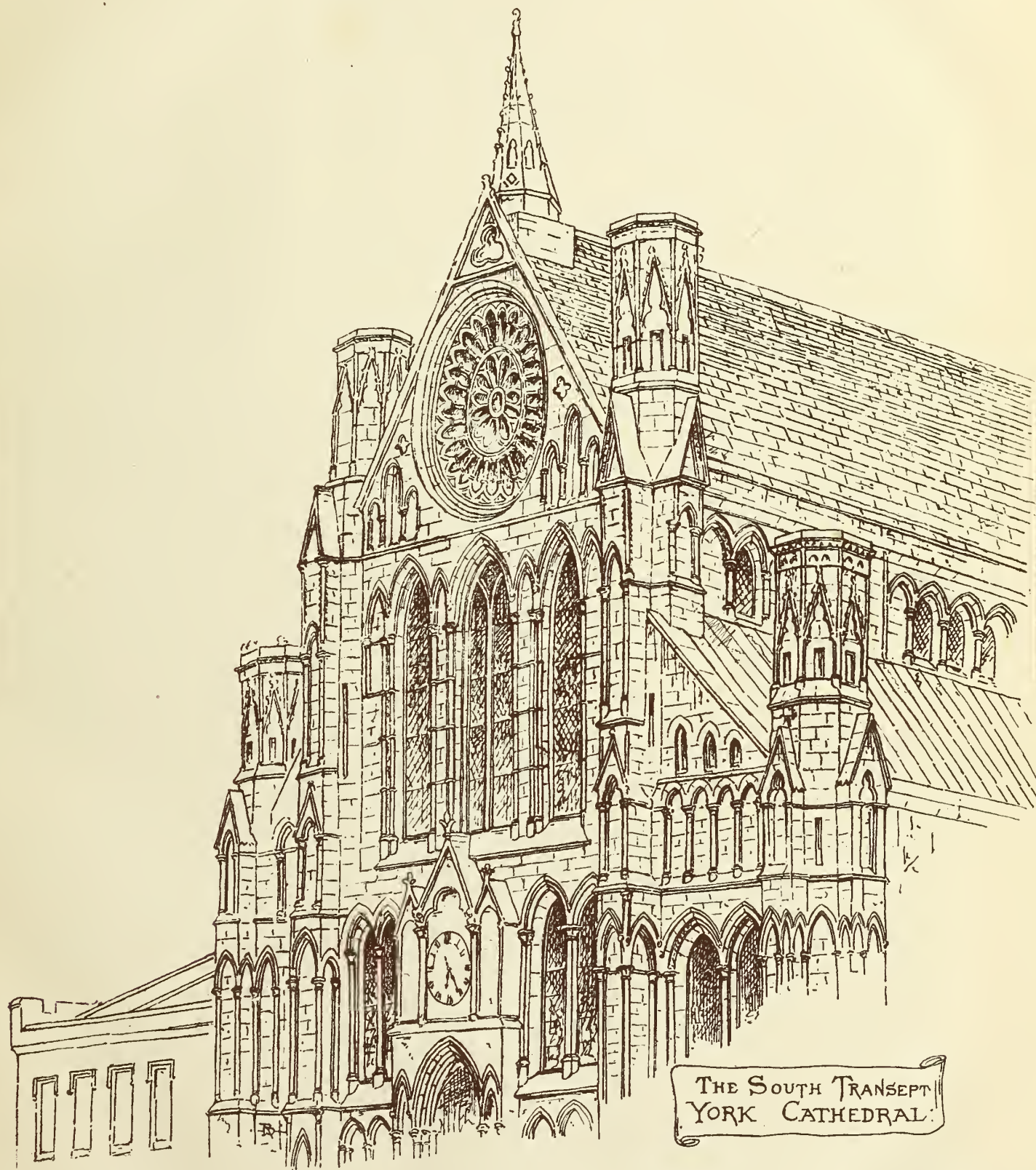
"The source of the River Vartry was at the base of the Sugar Loaf Mountain in the County Wicklow, and it flowed in a southerly direction, through a thinly populated country, into the sea at the town of Wicklow, being a distance of about 17½ miles. The geological character of the country was clay slate. The water flowing off the catchments was peculiarly soft and pure, and, by analysis, was found to be almost identical in character with the Loch Katrine water with which Glasgow was supplied. The rainfall over the district, from observations during the past thirteen years, varied from 40 in. in depth in 1873, the driest year, up to 60·87 in., the greatest rainfall registered: the average might be taken at about 50 in.

"The place selected for the storage reservoir was near the village of Roundwood, about 7½ miles below the source of the river. The bed of the river at that point was 632 ft. above Ordnance datum, and the drainage area above it was 14,080 acres: The embankment across the Valley was at the deepest point 66 ft. high, and it was 1,640 ft. long on the top. The greatest depth of water impounded was 60 ft., and the average depth 22 ft. The area of the reservoir was 409 acres, and it was capable of holding 2,400 million gallons of water, equal to two hundred days' supply for the City of Dublin and suburbs, taking the population at 400,000, and allowing 25 gallons per head per day for domestic and public use, and 2,000,000 gallons for manufacturing purposes. The level of the water in the reservoir when full was 692 ft. above Ordnance datum, and 580 ft. above the highest parts of the City of Dublin. The Corporation had acquired by purchase all the water rights of the mill-owners and riparian owners; accordingly no compensation water had to be given, the entire property in the water being vested in the Corporation. The quantity of the rainfall discharged over the bye-wash was about two fifths of the entire fall, so that by constructing additional reservoirs the storage would be increased 60 per cent.

"Two mains, 48 in. and 33 in. in diameter respectively, were carried through the bank in a tunnel excavated out of the rock and arched over. The 48-in. main, which terminated in the bye-wash, was a provision solely for the purpose of being able rapidly to lower the water in the reservoir, if necessary. The 33-in. main conveyed the water to a circular receiving basin, situated at the outer toe of the embankment, and from this basin the water was distributed by side canals on to seven filter beds. After being filtered the water was collected into two pure water-tanks, from whence it was carried for about 700 yards in an iron pipe, 42 in. in diameter, with a fall of 6 ft. per mile, until it reached the tunnel, into which it was laid for 120 yards. The tunnel was 4,367 yards long, and conveyed the water from the natural valley of the Vartry, under a range of hills separating that valley from the district sloping towards the sea to the east. The natural course of the Vartry was from north to south, but by curves in the tunnel it had been turned

\* Abstract of paper by Mr. Parke Neville, C.E. Read at Institution of Civil Engineers, London.





THE SOUTH TRANSEPT  
YORK CATHEDRAL.







to flow north towards Dublin. This tunnel was extremely difficult to execute, from the character of the rock bored through and the quantity of water met with. It was from 5 ft. to 6 ft. high and 4 ft. wide. To facilitate its execution twenty-one shafts were sunk, varying from 90 ft. to 180 ft. deep. The gradient of the tunnel was 4 ft. in a mile. At Callow Hill, the northern or Dublin end of the tunnel, there was a circular relieving tank, 90 ft. in diameter, and a gauge weir for registering the quantity of water flowing into the city. From this tank, the surface water in which was 602 ft. above Ordnance datum, a main, 33 in. in diameter, conveyed the water to the distributing reservoir at Stillorgan, a distance of about 17½ miles. There was a self-acting stop-valve at the junction of the main with the tank, to prevent flooding in case of a pipe bursting. Three tanks relieved the pressure at different points, viz: at Kilmurray, level above datum, 472.2 ft., distance from Callow-hill, 11,809 yards; at Kileroney, level above datum, 414 ft., distance from Kilmurray, 5,121 yards; and at Rathmichael, level above datum, 341 ft., distance from Kileroney, 6,444 yards; which latter was 7,431 yards from the Stillorgan reservoir. At each of the tanks there was a self-acting drop valve, to shut off the water in case of a pipe bursting. The pipes had been laid for 9,894 yards along the public roads, and the rest, 21,048 yards, across the country, which, for part of the distance, where the Dargle River, the Cookstown Valley and the County Boundary Valleys had to be crossed, was of a difficult and rugged character.

"The two distributing reservoirs at Stillorgan were 4 miles 5 furlongs 150 yards from the City Boundary at Eustace Bridge. The top-water level in the upper one was 274 ft. above Ordnance datum; it contained 43,057,414 gallons, and was of the average depth of 20 ft. The lower one was 271 ft. above Ordnance datum, or about 250 ft. above the quays in Dublin, and contained 43,166,548 gallons, the average depth being 22 ft. The total quantity of land occupied by the reservoirs, caretakers' residence, &c., was about 26 acres. At the south-east corner of the lower reservoir there was a handsome screen-chamber, of ashlar granite, octagonal in plan, and 49 ft. in internal diameter; the depth of the water was 27 ft. and to the floor line 31 ft. 6 in. The pillars and framework were of cast iron, and the screens had an area of 1,500 square feet, and were fitted with copper wire gauze having thirty strands to the inch. Seven 33-in. valves, two 27-in. valves and one 15-in. valve in this chamber regulated the distribution of the water. There was also a scour pipe and valve 12 in. in diameter, and the overflow was through a vertical pipe, 27 in. in diameter, with a bell mouth. The valve gearings were all fixed to the side walls, leaving the centre of the chamber quite clear. All the valves in this chamber and on the large mains were worked by slow motion gearing, to prevent the possibility of closing or opening them too rapidly; and indices, graduated to inches and turns of the screws, were attached to all to secure accuracy in working. Two mains, 27 in. in diameter, conveyed the water from the screen chamber to the boundary of the city at Eustace Bridge. They were carried through the embankment of the reservoir in a culvert. At the toe of the embankment a vaulted chamber was built, in which self-acting stop valves were placed. The mains were carried along the Stillorgan-road. At Merrion Avenue, at Simmons Court, and at Eustace Bridge, groups of valves, in vaulted chambers of easy access, enabled the water to be turned from one main to the other, so that in case of accident a short section of the injured main could be emptied for repair without interfering with the supply to the city; and at those points also branches were taken off for the supply of the Pembroke and Blackrock townships. On the city side of Eustace Bridge, at Leeson-street, the 27-in. mains separated right and left, and were carried through the streets (being gradually diminished in size to 18 in.) until they were united on the north of the city, forming a zone encircling the central parts of the city, and from this zone all the service mains diverged. Screw valves at the intersection of the streets enabled the water to be turned off or on, either to repair the mains, or to concentrate the pressure in case of fire. Hydrants were placed in every street at intervals of 100 yards, and the system was so perfect, that since the introduction of the Varttry water no steam or hand fire-engine had been used to extinguish fires. The supply of water at high pressure, to be obtained from the mains by simply attaching a stand-pipe, with hose, &c., to the hydrants, had proved sufficient to throw powerful jets of water over and on to the highest building, rapidly extinguishing fires and preventing them from spreading. A length of 51 miles of new mains had been laid within the city boundary, and 60 miles of the old mains had been utilised. The number of hydrants was twelve hundred and nineteen."

### THE IRON MINES OF ANTRIM.

At a meeting of the Chemico-Agricultural Society of Ulster, Dr. Hodges drew attention to an article that appeared in the *University Magazine*. He stated that the history of the discovery given in that article was altogether inaccurate, and the writer was apparently unacquainted with efforts to utilize ores which had been made more than thirty years ago. Dr. Hodges said at that time he had made numerous analyses of the ores, and he had also made the first analysis of the rich ores of Slievenanerin. In fact the analysis which, in the paper in the magazine, were stated to be by Messrs. Tait and Holden, had been made by him for Mr. James Fisher, by whom these rich beds were first successfully worked. He (Dr. Hodges) was the first to discover, as he communicated to the society, the presence in these ores of the rare metals setanium and vanadium. Dr. Hodges exhibited specimens of the resolethic ores which he had reported on in 1866, and also of the ores examined by him in 1843.

### THE ROYAL DUBLIN SOCIETY.

*Apropos* to a short article in our last—"A Plea for Art, Science, and Literature"—the report of the Council of the Royal Dublin Society furnishes additional matter for reflection. Aid was needed to do some necessary work in the Botanical Gardens. The matter was brought before the Science and Art Department, who communicated with the Board of Works, whose secretary wrote to say, that the cost of the items of the required works being again disallowed by the Treasury, £100 had been provided for the purpose of making the necessary repairs. On this subject the Council makes the following remarks, which are worthy of reproduction here:—

"With reference to this correspondence, it is to be observed that neither the Department of Science and Art nor the Board of Works, Ireland, are chargeable with any neglect as regards the house in question. Year after year the subject was brought before the Treasury with the view of sufficient provision being made in the estimates for the repairs and improvement of their house, but the item was as regularly disallowed. The council cannot but regret that a recommendation, emanating in the first instance from the council of the society, who must necessarily be fully informed as to the requirements of its several departments, and subsequently supported by the Science and Art Department and the Board of Public Works, both of which, by actual inspection, became acquainted with the necessity of the work in question, should have been over-ruled by a public department which, however eminent and influential, could not possibly know anything whatever as to the merits of the case referred to, and yet summarily decided not to afford pecuniary assistance which is absolutely necessary in order to preserve from destruction a large amount of property held by the society in trust for public purposes, the loss of which would be incalculable and irremediable. The experience of a few years past has demonstrated that, amongst the public boards with which they have been in communication, the efficiency of the society in its several departments has been sacrificed apparently to the desire to avoid expenditure of money, however urgent or desirable it might be. For several years the state of the iron shed used for the Museum of Botany at the Gardens has been brought under the notice of the authorities. It is fast falling into decay, and in a short time will cease to be a sufficient protection to the interesting series of specimens temporarily placed there. The Science and Art Department, impressed with the importance of having a Museum of Economic Botany established in connection with the Botanic Gardens, succeeded in obtaining a grant from Parliament amounting to £4,000, for the erection of an appropriate building for the purpose, and although the site was chosen, yet the council failed to induce the authorities to take any step towards the erection of the building, and the vote was eventually withdrawn. For each successive year the Museum of Natural History was provided with a small number of glazed cases to receive the acquisitions, which are already in excess of the space available for their proper arrangement or effective display. This year, however, this small provision has been withheld; hence numerous valuable collections recently acquired by presentation or purchase, are stored

away, there being no room in the existing cases for their arrangement. One of the collections so treated is a splendid series of Irish carboniferous fossils, presented to the society by Sir Richard Griffith, Bart., which, in a scientific and educational point of view, is of the highest value. In the year 1868, a commission, composed of gentlemen whose names would necessarily give great weight to their recommendation, were selected to inquire into the several scientific institutions in Dublin, with the view of the establishment of a Museum of Science and Art in Dublin comparable with a similar institution in Edinburgh or London. The inquiry, which extended to the South Kensington Museum, the Edinburgh Museum of Science and Art (which has been lately erected at a cost of nearly £90,000), and embraced the leading institutions for the promotion of science and art in Dublin, was conducted with great minuteness, and resulted in a report which recommended the establishment in and around the premises of the Royal Dublin Society of a Museum of Science and Art suitable to the position of the city of Dublin. Yet to this day the report has, as far as the council are aware, remained a "dead letter." In the year 1872 the council prepared a report on the subject, which they submitted to his Excellency the Earl Spencer, Lord Lieutenant, along with plans of the proposed building; yet, notwithstanding the expressed wish of his Excellency, as well as the Marquis of Hartington, that a museum of ornamental art should be established here, nothing has, apparently, to this day, been done in the matter. Again, the council feel themselves justified in asking Government for an increase to the salaries of the society's officers, inasmuch as, with an equal amount of duty and responsibility, their stipends fall far short of those of similar officers in London and Edinburgh. The council consider that the claims of all the officers of the society for a reasonable increase to their salaries is very urgent, but especially so in the case of the two assistants in the Natural History Museum, whose skilled services, entirely devoted to the public, is considered by the State to be sufficiently remunerated by a salary of £125 each! Yet the council regret to report that they have not received any response to their application."

A short time will show whether the Dublin Society's fair application will meet with any better success at the hands of the Conservative Government. Dublin has as good a right to State aid as Edinburgh. She does not demand more; but she expects, at least, that there will be an equitable distribution of the grants made in behalf of science and art. The report above quoted puts the case very fairly before the public, and the Government are certainly called upon to do what it is their bounden duty to do in the matter.

### COMPENSATION FOR INJURIES.

*John Griffith v. the Lord Mayor and Corporation of Dublin.*—In this case, which was heard before the Sheriff of Cavan, an action having been brought against the Corporation for neglect of duty, and judgment for £500 having been allowed to go by default, a writ of enquiry was issued to the sheriff to assess the damages, and the inquiry, accordingly, was held on Wednesday. Mr. Malone, on behalf of plaintiff, said that the action was brought to recover compensation for a severe injury sustained by plaintiff in consequence of the erection, upon the public flagway or footpath, of stone pillars, by the defendants, in order to protect a weighing-machine of their own, unlawfully placed on the same footpath. On the evening of the 15th of October last, plaintiff, who lives in North William-street, was returning home, between seven and eight o'clock, through Dunne-street, then in utter darkness, when he struck his foot against one of the stone pillars, whereby he was thrown down upon the iron machine, and his left arm was thereby so severely injured, that he has been prevented ever since from earning bread for himself or his family. Mr. Smith, C.E., produced a map of the flagway and the obstruction thereon, and proved that the position of the stone pillars (about two feet high) was 1ft. 9in. from the margin. Other witnesses testified to the occurrence, and to the strict sobriety and habitual industry of plaintiff. Mr. Sullivan, on behalf of the Corporation, addressed the jury at great length, and produced Mr. Callow, T.C., to bear testimony, on behalf of his clients, to the effect that the accident or injury was not severe, and that plaintiff would have been satisfied with £5 at the beginning, but admitted that he himself had subsequently proposed he should be allowed £10 and his costs. Mr. Malone replied on behalf of plaintiff, for whom the jury returned a verdict of £500 damages, and costs.



## ARCHITECTURAL STUDENTS.\*

MR. E. Trevor Owen being unable to read the paper announced in the Syllabus for this evening, I have been asked to take his place; and, instead of the interesting paper which I am sure you would have heard, I propose to direct your attention to a few matters I deem worthy of the consideration of architectural students—not that there may be any originality in my remarks, but that they may cause a discussion, and elicit some information for the benefit of those present.

As the greater number of our members are pupils or students of architecture, it strikes me that a few words of advice as to the course of study to be pursued, to fit them for the practice of our profession, may not be out of place.

In almost all other professions the student undergoes a systematic preparation for the calling which he has chosen, by going through a regular course of studies, attending lectures, and passing certain examinations to prove his proficiency before being admitted to practise. Now, the contrary obtains with architecture; no tests being required as to ability, any man may put a brass-plate on his door inscribed with the magic word, and forthwith he becomes an architect, the consequence being that several builders, auctioneers, land-agents, and others include the practice of the profession of which we are members in their list of accomplishments; the result being, that gentlemen and journalists look down upon us, and the Government of the country stoops from its lofty position to heap humiliation and insult on our devoted heads; one of the English journals—"a journal written by gentlemen for gentlemen"—going so far as to make in all seriousness the bloodthirsty suggestion, that to hang a few architects would be a salutary example and a fitting protest on the part of the public against the sanitary and other defects of the suburban villa of the present day, with the construction of 90 per cent. of which, it must be borne in mind, architects are in nowise responsible.

How is this state of things to be remedied? How are the public to distinguish between the genuine architect and the impostor? I say that the remedy lies in our own hands. Let us raise the status of our profession; let us educate the future architect, and rigidly set our face against and exclude from all intercourse with us those who, by irregular or unprofessional conduct tend to lower us in public opinion. But the surest way is to guide the young aspirant in his studies, and endeavour to instruct him in all things he should know, in order that—as is too often the case—he may not be but beginning his studies when they should have been well nigh ended, and when he should be in a position to drop into the ranks of those who are working at architecture as a means of livelihood. Let none of us be so blinded by selfishness as to refuse to impart information to any requiring it; but let us give it cheerfully, hearing in mind how we should ourselves have felt such a refusal, and that by instructing young men we are but bettering our own prospects and those of the profession, for the more learned and clever our body is, the more it will be respected and looked up to by the public.

The late Mr. Dickens, in one of his novels—with which, I suppose, you are all familiar—has painted to the life (and as only an observer of human nature like himself could have done) the disadvantages and absurdity of the pupil system. Let none of us say that Pecksniff is an overdrawn or extravagant picture, for we know in our hearts it is not so, for Pecksniff still lives and flourishes amongst us.

Although the faults of our present system of pupilage are, I dare say, patent to all here, yet I may be permitted to briefly enumerate them before proposing a remedy. We will take as an example a case with which we are all familiar: Tom, the clever boy, when at school shews a decided taste for drawing, and his sketches having been duly touched up or completely re-drawn by his master, are at vacation time brought home and exhibited by his fond parents to friends and relations with the same amount of pride as if they were rare impressions of Albert Dürer or The Carracci. It is agreed by all that he is a very clever boy indeed, and has a decided taste for drawing. He goes on with his usual school course—plenty of classics and little or no science,—and accumulates more and more pencil sketches. At sixteen he completes his studies, and is, after some preliminary bargaining between his father and Mr. Blank, F.R.I., &c., as to the amount of fee and length of servitude, duly installed in the office of the aforesaid Mr. B., the eminent architect—it being ten chances to one that up to that day Tom has not had the slightest notion of what an architect is, and is struck with astonishment at the large drawing boards, squares, and other paraphernalia that meet his eyes. Mr. B.

pats him on the head in a fatherly and affectionate manner, and says he is a very clever boy indeed; that his sketches are most beautiful, and evince a great deal of talent; that he will make him an architect in no time, together with other compliments highly flattering to our friend Tom's juvenile mind. He is ushered into the office, and finds he has for his companions two assistants and four or five pupils—the latter in various stages of being ground into architects in this first-class manufactory of the genuine article, where architects are turned out in the shortest time, and on the most moderate terms. Some are in a rough state, and others are almost quite polished and finished off—which means that they have spent nearly four years tracing plans for Mr. B., occasionally varying that interesting occupation by holding the tape for one of the assistants when out measuring land or buildings. Tom has a board, squares, instruments, and paper placed before him, and is initiated by one of his companions into all the mysteries connected with compasses, Indian ink, rubber, drawing pens, &c. After perhaps a month's preliminary training he gets his first tracing to make, and it is very probable that his attempt is a very poor one indeed; yet he improves after a time, and gets all that description of work; the other young gentlemen having his instruction in their hands, give him any job that may be distasteful to them, and set themselves out to teach him as little as possible outside the office work. So the four years pass over, Tom occasionally getting details to ink-in and drawings to clean up or copy, and varies the routine of office work by taking three or perhaps four months' shooting each year, with cricket matches and other amusements on an average of say twice a-week during the remaining eight months. The four years have expired, and he is banded over his indentures by Mr. B., who, if he has a large practice, may send him as clerk of works for a few months to some of his buildings, just to give him a start; or Tom, thinking his studies are over, if he has sufficient connection or influence, takes an office, and comes forth into the world as a full-fledged architect.

Now, let us ask ourselves what has he acquired during his four years' servitude? It is probable that during the whole of that time he has not received one word of instruction from the man who has been paid to teach him his business, nor seen a specification, such documents being prepared by an assistant, or—a still worse practice—by a building surveyor outside the office altogether. He does not know how to make a perspective drawing, and it is likely cannot design the simplest thing without a wholesale raid on architectural works and the building journals. It is almost certain that he has never seen an architect's certificate during the whole time; and as for his knowledge of construction, you might as well expect to find a South Sea islander conversant with astronomy.

Although the inherent defects of the apprenticeship system are many and great, yet if our friend had been a studious boy, and paid attention to his studies, and taken some interest in learning his business, he would not be a by-word and a reproach to the profession, and a laughing-stock for builders and practical men, who cannot understand his plans, and fear to construct his roofs as shewn on his drawings for a wholesome dread that they would certainly fit themselves or some of their workmen for a coroner's inquest. He would lose no opportunity of learning something, and would not copy a constructive drawing without asking himself the why and wherefore of its different parts; he would learn Tredgold's and other works on carpentry, and carefully study Nicholson and our old friend Sir W. Chambers; he would get a specification occasionally, and copy it out, and in fact endeavour by all means in his power to obtain as much information as possible bearing on the profession which he has chosen. If he does this and fails, he will at least not have himself to blame for his non-success.

Let me impress on any of you who are pupils, that now is the time to gain information, for any knowledge that will be acquired after you have commenced to practise will have been dearly bought, perhaps at the price of humiliation and disgrace, through some failure in your work that might have been avoided if during the golden hours of youth you had not wasted your time, and allowed the precious moments to pass by in idleness and indifference. It is not sufficient that you should pass through your four years' apprenticeship by just going through the routine of office work from 10 a.m. till 4 p.m. No time should be lost in idleness; you should bring home your master's books to read, and draw at home after hours. You should learn the principles of carpentry, and the uses of the different building materials, how to write a specification, to take out quantities, to measure up extras, check builders' accounts, and make valuations—all which important matters are to be learned by keeping your eyes open, and observing the manner

in which your master conducts his business, and by reading books bearing on those subjects. You should also learn to draw well and neatly both in pencil and ink, and, if you have the taste, in colors, and to make sketches from existing examples. You should learn projection, shadows, and, most of all, perspective, for none can be architects that have not got an intimate knowledge of the principles and practice of perspective, or the appearance their designs will assume in execution.

You should regularly attend the general and class meetings of our Association, at which much useful knowledge may be gained; and, in short, you should pick up information whenever you have the opportunity, storing it up in your minds until called upon to use it,—this being one of the many disadvantages of the apprenticeship system, that the student is left completely to himself as to whether he is to learn anything or nothing.

Our Association has been founded to remedy this most unsatisfactory state of things, and in some measure to supplement whatever information may be received in the office. The library is open to our members to take home the books, that they may be studied at leisure; their number is, unfortunately, small, but I trust they will soon increase. There are many architects in Dublin, who, I think, will be happy to lend standard books to our library when they hear they will be taken the greatest care of, and the great demand that there is for them. The classes are most useful, as a great deal of information is elicited at every meeting. The students should send in sketches in the class of design. No matter how crude, they will train them to sketch and design; and the criticism of the members will prove useful in showing them where they may have failed, and how their designs may in future be improved. If residing in Dublin, they will find a number of useful architectural books in the library of the Royal Dublin Society. They should also read the different building journals, which contain much information in their articles, and the reports of papers read before various scientific societies.

I must now, having spoken of the juveniles, refer to their masters, and trust that my remarks will be taken in a friendly spirit. I think that architects, when they take pupils, should recollect that they have some other obligations with regard to them besides pocketing their fees, and that they are bound by the indentures to instruct them in their profession, to take an interest in them, and discountenance all attempts on the part of the youngsters to neglect their business. They would also do well for the last year to make their pupils clerks of works, or, at least, to send them to superintend personally a large building, make details, set out work, make drawings for moulds, templates, &c.; and, in short, discharge most of the duties of a clerk of works, with the exception, of course, of checking materials, which knowledge they would in time acquire.

As far as parents are concerned, I consider that they should fix on the future calling of their sons when they become of sufficient age to develop a special talent in a particular direction; and, having determined on the profession or business which they would wish them to follow, should cause their studies to include those branches that are likely to prove most useful in after-life. I think that a great deal of particularly valuable time is lost at schools, boys being kept years learning things that are of no use whatever in after-life. The classics, to my mind—where boys are intended for mercantile pursuits, or for any occupation other than the learned professions,—are too much taught, to the exclusion of far more useful branches of knowledge, such as literature, Euclid, algebra, mechanics, natural philosophy, chemistry, and other living sciences that prove more useful to men of business than any amount of dead languages. Not that I object to the classics—some knowledge of them being indispensable,—but to their taking the place of more practical instruction. The special training of youths intended for our profession should include the branches I have just mentioned above, with drawing, practical geometry, and trigonometry. If, when boys are articled, they have been trained as I have indicated, their instructors would be saved a great loss of time, and themselves a vast deal of dreary drudgery.

As, unfortunately, we are in no way protected by law or charter—as the legal and medical, and, in some degree, engineering professions—we should all exercise a great amount of care in keeping up the status, and upholding the honour of our profession in the eyes of the public. I think that the habit of taking pupils indiscriminately, without any knowledge of their capabilities and talents, is calculated to do a deal of harm. All should get at least one month's trial; and if, at the expiration of that time, they do not show an aptitude and desire to learn, they should not be articled. The consequence of boys being taken indiscriminately results in this

\* By Mr. J. L. Robinson (hon. sec.). Read at meeting of the Architectural Association of Ireland, February 26th, 1874.



—that numbers, after losing four years of the most valuable time in their lives, abandon a calling for which they were never fitted, and should never have embraced. I venture to say, from my own experience, that sixty per cent. of those articulated never practise as architects, or even as assistants. The profession is, like most others, overcrowded, and numbers have to seek an opening in America and Australia, that they have not got at home.

The welfare of our profession is dear to all of us, and to none more than to myself. The few matters which I have brought under your notice to-night, to my mind, strike at the very root of it, for its future prosperity will wholly depend on the character and ability of the men who are now undergoing the necessary training for it.

### BELFAST IMPROVEMENTS.

THE subject of providing the Falls Road district with a park for the recreation of the people has been agitated for some time. The Belfast Council certainly committed themselves to the construction of two parks for Belfast as far back as 1869. Ormeau Park, on the grounds of the Marquis of Donegal, was to contain 173 acres; and the second park, on the Falls Road, was to contain 73 acres, without prejudice to the formation of other parks hereafter. The movement in support of the second park is not yet successful, but we have little doubt that the Falls Road district will have its park before long. In the report of the Public Parks Committee laid before the Council, the Committee recommend that they be authorized to raise the sum of £5,000, under the Public Parks Act, for the purpose of paying the purchase money of the surplus lands at the cemetery at Falls Road, and that the same be applied, in accordance with the provisional order of the 16th of May last, in reduction of the debt due under the Burial Ground Act, 1866, and in relief of the cemetery rate.

A discussion took place on the advisability of proceeding at present in the matter of the second park, and eventually the amendment was carried by which the question of the park was referred back for consideration.

The Town Improvement Committee, among other matters, report:—

“The Charitable Society have submitted a plan for a new forty feet street, extending from Clifton-street to the new burial ground, and they propose to close the old street, and narrow court known as Henry-place, and have given an undertaking to remove the old houses there, and, in the meantime, to satisfy the surveyor as to the width of passage to same. The committee consider a desirable improvement will be effected by the change, and recommend the Council to consent, so far as they legally can, to the society carrying out their proposed improvements. The committee have made arrangements with Mr. William Watt to take down and rebuild the wall, his property, at the corner of Great Victoria-street and Wesley-place, and to erect a coping and railing there, on an amended line approved of by the surveyor, the council to continue the flagging of the footpath in Great Victoria-street to the corner of Wesley-place, and three feet in width from Wesley-place to Kensington-street, the curbing, channelling, and flagging to be done at the council's expense. They have also arranged with him to form and flag a portion opposite to his property in Donegal-pass, same as done by the council opposite to the Presbyterian church adjoining, in consideration of his dedicating to the public use a strip of ground as required for the purpose. Mr. Arthur Alexander and Mr. Travers Smith have agreed to dedicate to the public sufficient ground opposite their respective properties on the Friar's Bush Road to enable the council to widen that road to forty-five feet, in consideration of the council's curbing, channelling, and gravelling a footway and macadamising the portion of the roadway so given. The committee recommend the arrangement for adoption. Mr. T. C. Robinson has also agreed to give a strip of ground opposite Albert-terrace, on University Road, to continue the present footway, in consideration of the council's forming, curbing, and channelling such portion of the footpath, and flagging five feet in width, and gravelling the remainder thereof, which the committee also recommend for confirmation. The committee have named the street from Utility-street to Bentham-street ‘Felt-street,’ the street from Botanic-avenue to Ormeau-road, south of Presbyterian College, ‘University-avenue,’ and the adjacent street, on

the north of Presbyterian College, ‘Fitzroy-avenue.’ The owners of property in Clement's-street, from Hopeton-street eastward for about thirty-seven and a half yards, having satisfactorily completed same, the committee approved of the work. The committee recommend the council to make orders, under the 86th section of the County Antrim and Belfast Borough Act, 1865, and the Belfast Borough Act, 1868, directing that Middlepath-street and McClure street shall be severally freed from obstruction, paved, flagged, levelled, drained, sewered, and otherwise completed, according to the specification and estimate prepared by the surveyor, for apportioning the cost thereof among the owners of property adjoining.”

Certain dangerous structures are also advised to be repaired or taken down, a presentment being made on the part of certain householders that they were in a dangerous position. The town of Belfast has generally exhibited a good public spirit in the matter of improvements; but still we must candidly say that, from a late visit, we are convinced that a great deal yet remains to be accomplished, in a sanitary direction, in the northern capital.

### CIVIC LYRICS.—No. LVII.

#### THE GOVERNMENT AUDITOR.

(A Lament.)

That prying Finlay comes again, to toss our books about;  
What business has the fellow here? We ought to turn him  
out!  
We can't expend a sixpence now hut he must know for what,  
Or he will make our seats for us a little bit too hot!

Our “sundries” have of course grown large, and are not very  
clear;  
But “petty cash” accounts, you know, can't otherwise appear.  
Car-hire is indispensable for working staff and chief,  
For he who saves his legs is sure to give his hands relief.

'Tis very mean, uncommon mean, most shabby and absurd,  
For auditors to ask us how small payments have occurred!  
We cannot break a water jug, a basin, or a glass,  
But Master Finlay wants to know how such things came to  
pass!

We represent the public, and we serve the public cause;  
And is it right or dignified we should be splitting straws?  
Most faithfully and loyally our duties are discharged;  
Yet if our lips are wetted, the bottle is surcharged!

Hang such shabby practice, and the Governmental Board!  
Soon the “Old House at Home” we'll have, whose loss we've  
long deplored;  
And then we'll snap our fingers at these auditorial hacks,  
Who come and go, and go and come, like everlasting quacks!

Rise up, Dublin citizens!—your honour is at stake;  
Defend your loyal Council, and make this Finlay quake!  
We've only done what others did, and, if our costs are big,  
'Twas for the poor we killed the bull last year, and not the pig!

Civis.

### NEWSPAPER “KIOSKS.”

#### A PLEA FOR THE POOR.

THE memorial of the street newsvendors of Dublin is entitled to every consideration. Their case has been plainly and briefly put, and their claims, we think, should be upheld. We are against giant monopolies of all kinds, and the taking of the bread out of the mouths of the industrious poor. Even from a newspaper point of view, the daily and weekly political press will be a great deal better served by the existence of the present system of street vending than by its embodiment in the manner proposed.

Many news-agents' shops at present exist in our streets, in addition to the trade carried on by the runners; and no necessity at all exists for the establishment of booths, sentry-boxes, or “kiosks” in our streets. An attempt has already been made in London to establish the kiosk system, but it failed. The newspaper press itself there sided with the street newsvendors, and stamped the attempted monopoly out of public notice. Paris has its “kiosks,” but Paris is not Dublin; but even though “kiosks” exist there in some of its streets, newsvendors are also permitted to ply their calling. It would be nothing short of a downright injustice to attempt to interfere with this class of men, who, for the

last hundred and fifty years, at least, have plied their calling honestly in this city. Establish a precedent, and where will it end? We would have, in the course of time, booths for the sale of various articles; branches of our warehouses would be extended to our streets, and a large addition would soon be made to our already too numerous public obstructions, of which the authorities should have long since rid us.

Our street newsvendors are a generally civil, industrious, and honest class of people, and they supply a public want; and we hope they shall long continue to do so, uninjured by avaricious speculators, and greedy, money-grubbing monopolists.

### HOW TO IMPROVE AND ECONOMISE THE PUBLIC MONEY.

THE Corporation of Dublin have never studied economy or endeavoured to lessen its law costs: its balance-sheets will show this. It is to be hoped, however, in future, when really urgent work requires to be done, we will have no further promotion of Parliament bills while “provisional orders” can be so readily and cheaply obtained. The Dublin Corporation, we must not forget, lately resorted to the resource of a provisional order; but we question very much, if their financial condition was not so desperate, a provisional order would be looked for. The lawyers and their friends profit more by a resort to cumbersome, costly, and tedious Parliamentary bills.

Lately the Belfast Town Council obtained a provisional order having all the authority of an Act of Parliament, and it only cost the sum of £250; and if it were not that the council incurred expenses in getting powers to purchase property to widen streets, it would only have cost the Belfast Corporation the small sum of £100. By the old system of bill promotion, even if the bill were unopposed, the costs would not amount to less than £15,000.

The establishment of the Local Government Board for Ireland has thus done good service. Additional powers, however, are still required in regard to railways, gas, water, &c.; and, if these powers were granted to the Board, our corporate authorities might really become practical and economical local parliamentarians for all powers connected with town improvement and social and sanitary reforms.

### MUNICIPAL AND SANITARY ENGINEERS.

THE association recently formed in London, for the purpose of embodying the municipal and sanitary engineers and surveyors in England into a representative body, appears to be progressing well. The association now numbers 137 members, made up from several of the chief towns and cities of England and Wales. We would like, as we have said on a former occasion, to see a similar body formed in this kingdom; and possibly, when sanitary legislation in this country assumes a more definite shape, such an association will be a necessity. The objects of the association, as appears by their rules, are—the promotion and interchange among its members of that species of knowledge and practice which falls within the department of an engineer and surveyor engaged in the discharge of the duties imposed by the Public Health, Local Government, and other Sanitary Acts; the promotion of the professional interests of the members; the general promotion of the objects of sanitary science. Mr. Lewis Angell, C.E., is the president of the association. The annual meeting of the association will be held in Birmingham, in May next. There is a large field and sphere of usefulness before the association, in view of the future of sanitary engineering practice, and we think such a body can show good reasons for its existence.



## SANITARY AND OTHER NOTES.

SEVERAL persons have been summoned for allowing their houses to be in a tumble-down condition, and among them Sir James Power, Bart., for keeping some houses in Thomas-street in a very dilapidated and dangerous condition. It was stated that all Sir James desired was that the Corporation should take them down, and charge him with the cost of doing so; there were difficulties in the way of his doing the work himself. Mr. Barry said the magistrates' order would give the defendant all necessary authority to enter and "repair, rebuild, or otherwise secure" the premises in accordance with the provisions of the Act. An order was made for the repairing of the houses within 21 days. Similar orders were made against Mr. Thomas Farrelly, 60 Meath-street, Mr. John Pullen, 22 Thomas-street, and Mr. John Campion, 17 Blackhall-row. We wish that Mr. Parke Neville would also summon a few of the scampy builders of many of the new houses now erecting, in which the provisions of the building and other acts are constantly violated.

On Friday, at the Northern Divisional Police Court, several dairy people were summoned for selling milk adulterated with water. The adulteration varied from 16 to 90 per cent. The fines inflicted ranged from £2 to £8. It was observed on the part of the prosecution, that owing to the authorities in London prosecuting dealers for selling the liquid with 10 and 16 per cent. of water, the authorities in Dublin would adopt the same course.

KINGSTOWN.—At a meeting of Commissioners, a draft petition to the Local Government Board was brought forward for consideration. It proposed, under the Local Government Act, to borrow £20,000 for local purposes, as follows:—£10,000 for additional sewerage in Kingstown; £8,000 for the purpose of erecting a town-hall, and court-house, to be erected on a site near the railway terminus, on terms promised by the Government; and £2,000 for the extensive asphaltting of the streets and foot-paths of the township. It was announced that in the event of the Court-house and town-hall being erected on the site indicated, that Harrymount would be given up at its present rent, £70 per annum, for the purposes of an hospital. Finally, the petition was passed, subject to adoption at another meeting. The bill of costs of Mr. Sharkey, Parliamentary agent, for opposing the late Gas Bill, was examined by the Board, and a resolution repudiating the claim was unanimously passed. The amount was £1,151. It was resolved to discontinue the services of Sanitary Police Sergeant Dowd, as the state of the town was alleged to be very healthy.

BLACKROCK.—At a meeting of the Commissioners some matters of local importance were transacted. A letter was received from Mr. Brindley Hone, again calling attention to the cost which he had incurred in constructing a sewer at Belgrave-square, and requesting to be recouped same. It was stated that the work had been done without the consent of the Board, who, therefore, held themselves not responsible in the matter. A letter was received from Mr. John Walker, of Seaford-lodge, Williamstown, stating that he was interested in property in George's-Avenue, Blackrock, and that the condition of it was rendered most unhealthy and dangerous to life by the existence in the vicinity of slaughter-houses and a dairy. The smell from the dairy was such as to require immediate attention. Mr. Walker suggested that a public abattoir, with asphalt floor, should be constructed on a proper site, and that all cattle should be slaughtered there. The chairman said that Mr. Walker's suggestion was deserving of the serious consideration of the Sanitary Committee. A report of that committee was read upon the subject, and the surveyor was directed to report as to the most eligible site for, and the probable cost of, a public slaughter-house. Captain Bethau submitted an estimate from Mr. Booth for the supply of a clock for the town-hall, at a charge of £25. Tenders for the construction of sewerage at Williamstown-avenue were received, and that of Mr. Pluck at £64 was accepted.

BRAY.—At a meeting of the Rathdrum Union, a letter was read from the Local Government Board, stating, in reply to a query, that the fact of the late medical officer for Killiney being in receipt of a pension from the Board did not disqualify him as a ratepayer from being appointed a guardian. A demand was received from the occupier of a Martello Tower at Killiney for a return of rates paid on the building, as the Government refused to allow them. It was ruled that the occupier should be responsible for the rates in question. A letter was read from the clerk of the Killiney Township, asking to be informed of the Act under which the guardians believed the township should form a drain from the workhouse, across Loughlinstown Common, to the sea. The writer was referred to a former minute of

this board, in which township boards were shown to be constituted sewer authorities under the Sanitary Act of 1866. The urgent necessity for immediate action in this matter was further directed to be impressed on the Killiney Commissioners. A cheque for poor rates on the Vartrey water pipes within their district was received from the Kingstown Commissioners. A claim for compensation was received from a resident near Dean's Grange Cemetery for alleged damage caused on his premises by an overflow of the graveyard drainage. It was resolved that the board should deny responsibility for the alleged overflow, at the same time it was intimated that additional drainage was being carried out.

## CORRESPONDENCE.

## THE BELFAST TOWN HALL COMPETITION.

SIR,—Through the medium of your journal I would wish to draw the attention of the profession at large to the final decision of the committee in this competition—a decision which is the reverse of complimentary to architects as a body, and especially to the Royal Institute of the Architects of Ireland. A number of architects were invited to compete for this important work, and the committee after various failures in arriving at a satisfactory decision (such as employing professional aid to determine relative cost) adopted what seemed a most honourable course and sent the designs, all of which were under motto, to the Institute to judge on them. A council was formed, comprised of gentlemen whose professional standing cannot be questioned, and they submitted a report, which was formed by a most careful investigation, and which was most impartial in its judgment. This report appeared in your columns. The first place and second place were awarded, the rest were considered as not fulfilling the requirements of the committee, and were consequently considered inadmissible. This report, which must be fresh in the memory of your readers, was sent to the committee, who, whatever their opinion of the Institute might be, threw it overboard, and awarded the first prize and gave the building to an "outsider," declining to give a second prize, and, I believe, have not stated their reasons for so doing; thereby adopting a course that leaves them open to the censure of those who competed, to say nothing of the indignation the Council of the Institute may feel.

If the committee had adopted the fair and impartial report of the Institute, they would have been able to congratulate themselves that they had founded an honourable course, worthy to be followed by those who call for competitions; but whereas they have ignored it, they have given a warning to all architects to be cautious in the extreme, how they enter on those mysterious characterless channels to fame that are known as "Competitions."—I am, sir, ONE WHO DID NOT COMPETE.

## THE TESTING OF GAS METERS.

SIR,—In a very able leading article in the "Saunders's News-Letter" of yesterday, shewing the necessity of the two Gas bills at present before Parliament being opposed by the ratepayers of Dublin, are a few remarks on the system of testing the gas in London, as compared with that of Dublin, well worthy of attention. In London there are several stations established by the Board of Works, wherein gas meters are tested and gas examined, and where complaints are in consequence very rare. The expense of the working of the London system is trifling in proportion when compared with the cost of doing the same work here, no matter whether well done or not—in fact, you can only form a vague estimate of the cost of doing this work in Dublin, as the following extract, taken from the Corporation accounts (Improvement Fund) for year ending 1st August, 1872, shews:—

|   |              |
|---|--------------|
| Salaries to   |              |
| Secretary No. 1 Committee   |              |
| Bookkeeper do. - - -  |              |
| Inspector - - - - -   | £2,105 7 0   |
| Gas Inspector - - - -   |              |
| Lighting Public Lamps - -   | 8,002 11 1   |
| Gas Meter Department, including repairs of gas measures, burners, &c. - - - - | 40 13 4      |
|   | £10,148 11 5 |

I am not aware that there is any person in the employment of the Corporation competent to make a perfect analysis of gas, and it is impossible from these items to learn the cost of verifying the gas meters in Dublin, but if the accounts were given to the public in the following or some clearer form, I am quite sure that the revelation would be anything

but agreeable:—Total number of public lamps; total bulk of gas consumed by them; total cost at per 1,000; cost of painting and repairing lanterns, &c.; do. of governors, burners, and repairing gas meters; names of lamplighters and amount of salary paid each; name of inspector of public lighting, and salary paid; name of inspector of lamplighters, and salary paid.

## Gas Meter Testing Department.

Dr.

Name and salary of gas meter verifcator; do. of assistant; cost of gas, sealing-wax, &c., used in testing.

Cr.

By amounts received as fees for testing and verifying as correct gas meters during the year 1872-3.

N.B.—The particulars of the meters ought to be given.

I imagine that the manager of both departments had education sufficient to enable them to keep accounts, and, if this or a similar return would be forthcoming at the next audit of the Corporation accounts, it would make things much clearer.

JAMES KIRBY.

41 Cuffe-street, Dublin,  
13th March, 1874.

## THE ROYAL DUBLIN SOCIETY'S LIBRARY.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Believing that you are sincere in your professions of interest in the education of the artisan classes, I trust you will be the medium of exciting a similar laudable zeal on the part of the responsible parties in the management of the above department. Having from time to time visited the Library, and found the deficiency and absence of really instructive works in the architectural and other arts, &c., it would be of great benefit to have a revision and addition to the stock of literature now at the service of those interested in the acquirement of practical knowledge no longer delayed.—Yours, &c.,

MINERVA.

## A JOURNALISTIC NOTE.

A PERSONAL and professional friend of many years' standing, Mr. J. D. Daly, a native of this city, and for several years connected with the London press, and for a considerable period editor of the *Evening Standard*, has resigned his connection with the latter journal, and leaves for Geneva, to assume the editorship and joint proprietorship of the *Swiss Times*. In future, this well-known continental organ will be known as the *Continental Herald and Swiss Times*. We need only add that our continental cotemporary will secure, in the person of its new editor, a gentleman of varied qualifications and marked ability, and one who can hold converse in more than one continental tongue. We wish our journalistic brother every success in his new position, and we are certain that the paper he edits will evidence an increase of merit and public influence under his control.

## THE INSTITUTION OF CIVIL ENGINEERS (ENGLAND).

At a meeting of this society held on Tuesday last, Mr. Harrison, president, in the chair, a paper was read by Mr. G. W. Rendel, M. Inst. C.E., on "Gun Carriages and Mechanical Appliances for Working Heavy Ordnance." The author showed the error of the popular objection entertained against wrought iron as a material for gun carriages, on the score of its producing, when struck by shot, more destructive splinters than wood; and proceeded to give detailed descriptions of the Elswick carriages. He stated that the plate compressor, or recoil break, had been adopted almost universally, and by nearly every power in the world. By the adoption of mechanical arrangements for the application of manual power to the working of ordnance, guns up to 25 tons could now be worked with more ease, safety, and rapidity, than guns of a fifth of that weight formerly. But ordnance was being manufactured of far greater weight, and there was scarcely any limit, as far as manufacturing obstacles were concerned, to the size and weight of guns produced on the built-up principle. It was, therefore, imperative that in future mere hand labour should be superseded by some inanimate power; and the simplicity and compactness of hydraulic machinery especially adapted it for that purpose. Descriptions were given of arrangements experimented with, or now in progress, for loading and working guns by hydraulic machinery, and the system was further illustrated by elaborate drawings and working models.



## THE "CITY COMPANIES" IRISH ESTATES.\*

IN the reign of Elizabeth, a rebellion having broken out in the province of Ulster, in the north of Ireland, that province became vested in the Crown by forfeiture; and in order to resettle the same, and to establish a colony of Protestants there, particularly in the county of Derry, James I., in 1609, made proposals to the mayor and commonalty of London of such forfeited lands, upon condition of their new planting and peopling the same.

The proceedings for the purchase commenced by the mayor's sending precepts to the companies, dated July 1st, 1609, which were accompanied by a copy of certain "Motives and Reasons," to induce the citizens of London "to undertake in a plantation in the north parts of Ireland," together with a printed book, containing a collection of such orders and conditions as were to be observed by the undertakers, upon the distribution and plantation of the escheated lands in Ulster, lately received by his lordship (the mayor) from the Lords of his Majesty's Most Honourable Privy Council, and to the said precept annexed.

The "Motives and Reasons" are long, but very curious. The spots pointed out as fittest for the city of London to plant are stated to be "the late desolated cittle of the Derrie," situated on the river of Lough Foyle, which was navigable with good vessels above the Derry, and the land "at or near the Castle of Coleraine," situate on the river of the Ban, but navigable with small vessels only, "by reason of both these places (but particularly the Derry) is stated to be such as, with small expense and industry, might be made by land almost impregnable, and consequently afford perfect security to their inhabitants." To these towns the King, it is said, would grant corporations, and also the whole territory betwixt the holdings, measuring 21 miles in length, and including the sea on the north, the Ban on the east, and the river Derry, or Lough Foyle, on the west; and out of which 1,000 acres or more might be allotted to each of the towns for their commons, rent free, whilst the rest could be planted "with such undertakers" (or settlers) as the city of London should think proper.

The "land, sea, and river commodities" of a part of Ireland so to be conveyed are then pointed out; the land is described as well watered, having plenty of fuel, and stores of all things necessary for food, not only for home consumption but exportation; the soil is fertile for tillage, adapted for the breed of English sheep, growth in many places of madder, hops, and wood, and affording also abundantly fells of all sorts, red deer, foxes, sheep, lambs, rabbits, martens, squirrels, &c. Hemp and flax, it is added, grow there more naturally than elsewhere; the materials for building, both of houses and ships, are further said to be abundant, there being for the former, timber, stone, lime, slate, and shingle, with proper soil for brick and tile; and for ships, everything in the greatest plenty, excepting tar; also other sorts of wood for different services, as pipes, staves, hoop-staves, chess-board-staves, wainscot, soap, and dyeing ashes, glass and iron works, "iron and copper being plentiful there." The sea and rivers are mentioned as offering equal advantages, and the document finishes by pointing out the profit that London shall receive by this plantation.

The king's proposals having been received, the mayor and citizens immediately thereon erected a company, consisting of a governor, deputy-governor, and twenty-four assistants (since called the Irish Society), to treat with the Crown concerning the new plantation; and the city having resolved to accept the king's proposal, and having raised by contribution among the principal companies £60,000 for that purpose, James, by his letters patent dated March 29th in his 11th year, incorporated such society by the name of "The Governor and Assistants of the New Plantation of Ulster, within the Realm of Ireland;" and granted to them and their successors (upon condition of their building the town, setting the lands, and doing other services), various cities, manors, towns, villages, castles, lands, and hereditaments, in the said province of Ulster, with power to create manors of any quantities of lands not exceeding 1,000 acres, of such tenants as were in the letters patent limited, and to limit the said several manors so many acres of lands, distinct and severed for demesne lands, as should seem necessary and convenient to the Society. And a new county was thereby erected, which, uniting the old name of Derry with its new masters, the Corporation of London, was called "Londonderry."

The new settlement having been thus finished, the towns built, and the lands settled, the whole was mapped and divided by the Irish Society, as nearly as could be, into twelve equal parts, and the

twelve companies who had equally contributed to the raising of the £60,000 mentioned, cast lots for the several shares which, on receiving, they were named from themselves, their armorial bearings, or other circumstances. Thus the drapers have their "Manor of Drapers," the ironmongers the "Manor of Lizard" (lizards being that company's supporters) the Salters, their "Manor of Sal," &c. The Irish Society continued to act under the charter of James until the reign of Charles I., when it was revoked and declared void by a sentence of the Court of Star Chamber, and the crown resumed the lands as forfeited, on pretence that the covenants of the original grants were not performed. But Charles II., in the fourteenth year of his reign, granted a new charter, confirming the previous one of James, and restoring to the city and twelve companies all their former privileges and estates, and it is under this charter that the Irish Society continue to act as a corporation. They are invested by the crown with the most ample authority to enforce their own regulations for the general object of the plantation; and, notwithstanding the division of the estates amongst the twelve chief companies, such estates are considered to be still under the paramount jurisdiction of the Irish Society, and are liable to contributions, if necessary, in common with the indivisible estates in the society's possession towards the general fund for maintaining public works and edifices, supporting the civil government of the city of Derry and the town of Coleraine, repairing Protestant churches and chapels, establishing schools throughout the plantation, and generally for the execution of such measures as tend to promote and improve the civil and religious interests of the tenantry.

Most of those companies which retain their Irish estates have brought them, by cultivation and liberal treatment of their tenants, into a flourishing state. Some of them print annual reports of their state, for the use of their members of deputations, previously sent to Ireland for that purpose. The "Reports of Deputations" of the Drapers' Company from 1817 to 1820, and again in 1827, form a very elegant and interesting work, illustrated with a plan and various pleasing views of their lands and buildings. These reports afford a most gratifying account of the great improvements which have been effected, the additional happiness and comfort thereby conferred on their tenantry, and the general high state of prosperity of their property there. Other companies, it appears, tread in the same laudable steps, so that the territories of the Irish Society and of the livery companies of London promise to become ultimately the best built and most cultivated portion of Ireland.

It may be added, in conclusion, that there are at present existing in the City of London 76 companies, 36 of which have halls, 20 maintain almshouses, 14 have schools, and 35 administer trust funds.

Dublin working men may advantageously take a leaf out of the books of their confreres in Westminster, a number of whom, by means of small subscriptions, have bought the land and built suitable premises for a working-men's club, reading and refreshment rooms, and lecture halls, capable of accommodating six or seven hundred persons. The building has cost £1,200, which has been subscribed entirely by the working classes. One of the subscribers designed the building, another acted as architect, and others worked as carpenters, bricklayers, &c. The hall is situated in Regent-street, Westminster, where it is intended to hold a fancy bazaar this day and to-morrow (Saturday). The proceeds will be applied to furnishing the club. There will be a vocal and instrumental concert each evening.—*Irish Echo*.

## TO CORRESPONDENTS.

PROFESSIONAL BRAIN-PICKERS.—An architectural journal, or rather a journal made up of a compilation of the articles of other journals, has been for some time showing its love for the IRISH BUILDER. We suppose its editor and proprietor would like to be termed honourable gentlemen. If so, when they cease to commit wholesale robbery, and express contrition for their sin, we will then consider how we will address them.

"WATTY COX"—The celebrated Walter—or, as he was more familiarly called, Watty—Cox was originally a gun-smith, and furnished military data to Lord Edward Fitzgerald. He started his once famous magazine in 1807, and continued it, with more or less success, for some years. Volumes of the *Irish Magazine* are now scarce.

A MASON.—For public buildings in London there is not much granite used, though for harbour piers and embankment walls it is used plentifully in different districts in England. Polished Aberdeen and North of Ireland granite pedestals, columns, tablets, and monuments are of late years becoming pretty general in England.

STOCKWELL-STREET (GLASGOW).—There are many Scotchmen in Dublin, but there are but few building operatives belonging to Scotland. You would find Dublin practice in house carpentry and joinery very strange for some time, but you would probably soon get accustomed to it.

A STUDENT.—There are a few good offices in Dublin where you would obtain a fair knowledge of your profession; but unless you have an earnest desire to pursue it, coupled with a love of the art, you had better tell your parent so at once. At your age your servitude should be at an end instead of beginning.

AN ARTIZAN.—Join the classes in the Royal Dublin Society, and study at home as well.

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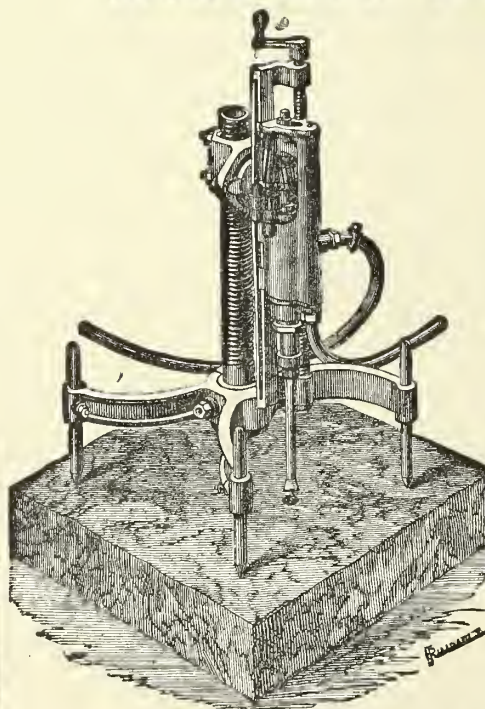
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THE McKEAN ROCK DRILL.—Although, perhaps, less prominence has been given to the McKean drill than to some others in the various articles and letters which have from time to time appeared in the *Mining Journal*, the introduction of the machine has been steadily going on, and the results obtained with it have been in every case satisfactory. The machine is in general use, amongst other places, at the St. Gothard Tunnel, and St. John del Rey Mines, and from the acknowledged practical ability of the gentlemen who have control of the working operations at these places, the mere adoption of a machine by them is a very strong evidence in its favour. With regard to the St. John del Rey Mines, in particular, it may fairly be said that the managing director—Mr. John Hockin—has for years past displayed the utmost discrimination in the selection of the best machinery and materials obtainable in the market; hence, perhaps, the success which has attended his efforts to reinstate the company in its former prosperous position. The reason for his choice will readily be understood when the claims put forward for the McKean drill are considered. As compared with all the drills at present in the market, its advantages over them are that it is the simplest in construction, and contains the fewest parts; that no duplicate parts whatever require to be furnished with the machine, that it is more durable on account of its superior mechanical construction, that it is the most powerful, and runs at greater speed than any other, without liability to derangement or breakage, and that it possesses greater facility of manipulation in its adaptation to various kinds of work. The work done with the machine certainly goes far to establish these claims, and to remove any doubt that may exist. Messrs. McKean & Co. announce that they are quite prepared to submit to any competitive tests to determine the facts. This is only repeating the challenge made more than 12 months since in the *Mining Journal*, and as Messrs. McKean & Co. expressed their willingness to agree to any reasonable conditions, it is to be regretted that a competition promising to prove so extremely valuable to miners should never have taken place. The renewal of the offer at this time, when increasing interest seems to be taken in the matter, is particularly opportune, and its non-acceptance by rival manufacturers could only be regarded as a tacit admission on their part of the superiority of the McKean drill.—*Mining Journal*, Nov. 22, 1873.



# The Irish Builder.

VOL. XVI.—No. 343.

## About Swift and Handel.



MR Robert Prescott Stewart—to whom the musical public of this country, and indeed of the sister kingdom, are in no small degree indebted for his admirable lectures in connection with his art—has, we think, fallen foul with our great countryman Swift. Handel, as a musician or musical composer, has won a niche for himself in the history of his profession; but, on the score of patriotism or charity, he certainly cannot claim a place beside our countryman.

Swift's conduct with regard to Stella and Vanessa is as yet but a half-explained chapter in his life; but these private incidents in his life cannot be justly brought forth and flung in his face to prove that he was "a thoroughly heartless person." It is by his public actions we must judge Swift, as well as other great labourers in the public service. If all our celebrated men were to be judged by their private faults and mistakes, the public estimation in which they were held would be sure to suffer not a little. Even Handel would not pass scatheless through the ordeal. What boots it that Swift sneered at Handel, or shewed apparently little appreciation for his music? Others have acted similarly, and have been passed over. Swift's opposition was not a personal one, but was one in unison with his whole career. He detested and despised the spirit of his age, as it was developed to the degradation of everything native, to the glorification of everything foreign, not alone in music, but in manufactures. He preached the lesson that his great contemporary Bishop Berkeley also preached; but the Bishop was more judicious and less demonstrative, though not more sincere, than the Dean.

We dissent altogether from the opinion of Sir Robert Stewart when he says, "the composer would have conferred infinite honour on the Dean by allowing him to brush his (Handel's) shoes." Indeed there can be no comparison properly instituted between Swift and Handel; but, as far as it is possible to institute a comparison on the score of public worth, Swift must always stand immeasurably superior to the German composer. Many celebrated men as well as Swift, were apparently incapable of receiving musical impressions, or perhaps it would be nearer to the mark to say their taste for music was small. There are many persons who can neither sing nor play upon a single musical instrument, yet they can love and do love to hear music.

There are poets amongst us who can write songs to any air, and who can mentally attune their feelings and impressions, and embody them in fitting rhyme, but, beyond this, can give no vocal or instrumental exhibition of latent power and feeling. The hearing of certain airs and strains often brings tears to the eyes of such persons, yet, in the eyes of the world, such people would be written down as unmusical, from their lack of the usual

accompaniment of musical education and training. Swift was a poet, as well as a churchman and patriot, and we cannot doubt for an instant that he was so destitute of musical impressions as Sir Robert Stewart would seem to assert. Some of Swift's writings are, indeed, coarse, very coarse, and so were the writings of most of the great authors of his time. The great Shakespeare himself is very coarse, and so were several of the poets and dramatists from his time down to the present century, aye, even the present day.

We do not care to enter, in this journal, on the political phases of Swift's life, as it is outside our province, or we could prove much that redounds to the honour of our countryman. From a patriotic and national point of view, the labours of Swift may, however, be alluded to; and what do these prove? They prove undeniably that he worked zealously, in a demoralizing and corrupt age, to elevate public opinion and develop national industries. They prove, despite his private frailties, his public labours earned for him the gratitude of his countrymen. They prove that he was instrumental in crushing insidious monopolies and monstrous jobbery that bid fair to beggar and eternally ruin the country beyond the power of redemption. They prove that, though a churchman, he did not cease to be a citizen and a patriot, and that it is not incompatible with serving God to love one's neighbour. His sneer at Handel and the innovators of his day sink into utter insignificance when compared with his life-long services. Swift must be judged by his labours, and in connection with the spirit of the times in which he lived, and not otherwise.

The crowning act of Swift's life stands out still in bold relief, and in itself is sufficient to wash out his venial sins. The foundation of St. Patrick's Hospital—a glorious institution still existing, established for the succour and relief of those who suffer under the greatest affliction that our nature is heir to—proves incontestably, we think, that our much-maligned countryman was not the "unfeeling and thoroughly heartless person" that Sir Robert Stewart, perhaps unconsciously, describes him to be.

It is possible that the pursuit of music may enervate, as well as inspirit, betimes; in fact, it is possible, for there are well-known instances of great musical composers who have visited and lived in this city, as well as in the sister kingdom, whose selfishness and greed amounted to something quite abnormal. How many of our great musical composers have founded asylums for the refuge of the poorer members of their profession? The public have heaped favours upon several, and subscribed capital to found institutions in their name; but it is singular, and we regret to write it, our rich musicians have, as a whole, done comparatively little for the relief of their brethren, or public charities at large.

In what we have written, it has not been our intention to depreciate the great influence of music or its professors. We love the old minstrelsy of our native land, and we honour and revere its exponents and interpreters. Our country can boast of a national collection that can favourably compare with any other country, but we need still something more in the higher forms of the art, which time only, and a greater developed taste, can alone bring us. We need schools and academies of music in Ireland, as well as schools and academies for painting, sculpture, and architec-

ture. With schools of music, or institutions where the education that is needed may be obtained, the taste will spread; but self-culture must supplement the efforts of the instructor, and energy and love must accompany it. Mankind is made up of varied tastes; we cannot be all musicians or musical composers, though it is possible we could be all lovers of music.

There is no need that we should fling hard words at those whose tastes lie in a different direction from our own. There is no need that we should endeavour to degrade a great Irishman, churchman, and patriot, for the purpose of elevating a great German musician. In canvassing for sympathy with one's hero and art, there is no necessity that the hero of the great body of our people should be attempted to be dragged down from his pedestal and pelted with mud. We respect the name and fame of our native and adopted countrymen, and Sir Robert Stewart amongst the number; and it would ill become us, as Irishmen, and representatives of no small section of our countrymen, to stand silently by while very hard epithets were flung at the head of the fosterer of our native trades and manufactures, and the founder of St. Patrick's Hospital.

## ARCHITECTURAL EDUCATION.—II.

ARCHITECTURE has been defined as the "art of building well"; and in former times, when architecture as a fine art had life and vigour, the architect was virtually a "master builder," and his assistants workmen with some artistic feeling: but now "architecture" and the "art of building well" are seemingly two different things. In modern times we have "division of labour" in architecture as in many other arts, and with this result—that the designer, through lack of a practical knowledge of building, designs impracticable things; and, on the other hand, the builder being utterly destitute of all sympathy with art, executes the design and translates the designer's idea in the worst possible way. Whether architecture as a fine art would regain its former excellence, if designing and building were brought into closer connection, is not within the province of this subject; but it does certainly appear that architecture would be benefited if the workman had some knowledge of art, and the designer a more practical acquaintance with building. In considering, then, an improvement on the present system of architectural education, it would be well to endeavour to supply this knowledge.

In the arts of ship-building and mechanical engineering, the designer of the ship or engine is quite conversant with the *modus operandi* of constructing these things, because part of his education consists in making with his own hands what he afterwards designs, and he is thus better fitted for his work. To suggest that architectural students should for a time act as workmen, in order to gain a practical knowledge of building, will at the present time be received by many as an absurd idea; yet the comparison drawn between house-building and ship-building is perfectly legitimate: both are capable of being made *fine arts*. The modern idea of what an architect should be, is something far removed from the old idea—a master builder. We forget that the design of the architect should be *the building*, and not his design on paper: this together with his contracts with builders, as at present understood, should be looked upon as the tools wherewith he designs in brick, stone, or other material. The architect is too often looked upon as an ornamentist called in to decorate the builder's construction. The importance, then, of a thorough knowledge of building to the architectural student cannot be overrated.



In considering the best mode of improving the present system of education, it will undoubtedly be well to turn to account the present means whereby knowledge necessary to the architect may be obtained, and that these means should be availed by all who intend entering the profession. If each association of architects in practice appointed a committee to examine all candidates before entering the profession, we should have better pupils; and if all candidates brought with them certificates from such institutions as our local schools of art, the work of the examining architectural committee would be such as demand very little time from their professional duties. The style of freehand drawing acquired at the schools of art is often condemned by architects, but it is better that a pupil should avail himself of what instruction he can get than have none at all. No similar objection can be made to the instruction given in perspective and geometrical drawing taught in these schools; and, if all who intended being students of architecture brought with them a knowledge of these subjects on entering the profession, much after-time would be saved.

If we consider five years a sufficient time for a pupil to study architecture, he should during the first, second, and third years have abundant facility for visiting all works in progress, and from time to time be conducted over them by an architect who would explain everything required, and every means available—either by books, lectures or otherwise—placed at the disposal of the student, whereby he may obtain a thorough knowledge of building materials and construction. The office work of the pupil during these three years would be a gradual advance from tracing and copying to preparing all contract drawings and specifications, and before entering on his fourth year the student might be examined more particularly on his knowledge of building construction, &c. During the fourth and fifth years more attention should be given to the artistic training of the student; the fourth year might in part be devoted to the study of the best examples of architecture in past ages. The selection of style must be left to the mature judgment of the student; but, while employing that style, he should endeavour to stamp it with his own individuality, without which true art cannot exist. The last year of study should give the pupil some opportunities of exercising his skill in designing, in interpreting, or carrying out details of the ordinary office work, under the supervision of his teacher; and finally, on the completion of his pupilage, he should be again examined, but with reference to his artistic knowledge and abilities.

The foregoing outline of a course of study is not given as an infallible remedy for the present defective mode of teaching, but it is advocated that our architectural institutes and societies, who alone have the power of remedying present evils, should organise a systematic course of education for the pupils destined to be future members of the profession. In what has been suggested there is nothing impracticable; and, doubtless, when there is a will to improve, the way will not be far to seek.

R. BROWN.

### CONSPIRING TOWN COUNCILS versus COMBINED RATEPAYERS.

A sign of the times was exhibited on a large scale in London on Thursday and Friday last week. A meeting of a number of the representatives of Associated Municipal Corporations met in the Westminster Palace Hotel, for the purpose of discussing "the Municipal Corporations (Borough Funds) Act, 1872, the Fires Bill, the Juries Bill, and other Acts of recent legislation, with a view to their amendment." The Mayor of Manchester presided. On Sir Joseph Heron, the Town Clerk of Manchester, devolved the duty of

explaining the object of the meeting, and he characterized the Borough Funds Act of 1872 as an "extraordinary specimen of modern law-making . . . the injurious effect of which was almost impossible to exaggerate." He alluded to the bill that was introduced in the session of 1873, by which it was proposed to repeal (1) the clause requiring the assent of the owners and ratepayers; and (2) the provision in section 2, relating to applications for powers to establish gas works or water works; and he said that the bill was withdrawn mainly, as was understood, in consequence of the "selfish opposition threatened by the combined gas and water companies." Sir Joseph Heron next read a memorial to Parliament, which contained the following passages, to which we would ask the attention of the ratepayers in view of certain efforts making by the Corporation of Dublin to obtain like ends:—

"That, in the opinion of your petitioners, the provisions of the Municipal Corporations (Borough Funds) Act, 1872, are in many respects unreasonable and unjust, are in violation of the spirit as well as the letter of the Municipal Corporations Reform Act, are inconsistent with the due recognition of the principle of local self-government, are calculated to paralyse the efforts of governing bodies, and to discourage all attempts to provide water for the inhabitants, or to carry out sanitary and other improvements which are at this time imperatively required. That governing bodies, who are the duly-elected and responsible representatives of the ratepayers, ought, instead of being restrained by vexatious legislation, to be assisted and encouraged in obtaining such Parliamentary powers as may be required for the execution and carrying out of necessary sanitary improvements. That so long as such objectionable and restrictive legislation remains in force, it is unreasonable to expect that governing bodies will attempt to obtain the powers usually required for the execution of nearly all important sanitary improvements. That it is further enacted that notwithstanding the approval of the Government has been obtained of the object for which the expenses may be incurred, all costs incurred under the provisions of the Act before the same became chargeable shall be examined and allowed by some person to be authorised by one of Her Majesty's Principal Secretaries of State, or by the Local Government Board. That such provision is objectionable and unnecessary, inasmuch as, with the best intentions, it is impossible absolutely to limit and control the expenditure which may be required, especially in Parliamentary proceedings; and it is not reasonable to expose individual members to the liability of being made personally responsible for payment of expenses which have been honestly incurred for purposes approved of by the Government, and determined in the mode prescribed by the Act to be necessary for the district."

Now, the simple explanation of the effort of these combined Town Councils is not to obtain powers to carry out sanitary measures, but to obtain even more powers to tax the ratepayers to any extent to pay the expense of promoting bills in Parliament, and to carry out other schemes which are likely to prove a heavy burden to the ratepayers, and to take the responsibility off the shoulders of the promoters by placing it upon the ratepayers *in globo*. We detest factious opposition to really useful measures of sanitary reform and towns improvement, but if there was no restriction upon town councils, by which ruinous measures could be opposed by the action of the ratepayers, several cities and towns would be ruined by excessive taxation.

The meeting of Thursday last was followed up on Friday by a deputation of the members of the Associated Corporations, who waited upon the Home Secretary; Mr. Selater-Booth, the President of the Local Board, and Sir Selwin Ibbotson, were present during the interview. We give a short summary, by which it will be seen that the promoters have not much reason to be thankful for the result of their sinister designs:—

"The deputation having been introduced by Sir Thomas Bazley, M.P.,

Mr. Picton, of Liverpool, explained the objectionable nature of the Act, and its operation upon the mode of conducting public business by municipal corporations. All attempts at sanitary legislation were, he said, under its provisions, liable to be frus-

trated by knots of persons who made it a practice to oppose the outlay of public money for any purpose whatever. In fact, it was subversive of the best interests of a community, whilst it allowed a poll to be demanded when such a procedure was absolutely unnecessary.

Sir Joseph Heron, the Town Clerk of Manchester, read the memorial adopted at the conference, and said that the delegates earnestly prayed for some relief from the most objectionable parts of the Act.

The Home Secretary—Any crumbs of comfort, I suppose, you will be thankful for. (A laugh.)

The Town Clerk of Chester said that by the Act the corporation of a town was deterred from bringing forward any bill which might be deemed necessary for the promotion of the health or the welfare of the people.

Mr. Selater-Booth asked if there was any difference between the powers to promote and oppose?

Sir Joseph Heron replied that their hands were tied as regarded opposition; but in case of promotion a corporation could take its own time for bringing forward a bill.

Mr. Albert Grant, M.P., supported the views generally of the deputation.

The Home Secretary said that the deputation had placed their case very clearly before him, and he would take care to consult his colleagues upon the various matters that had been touched upon. *At present, however, he could give no definite reply; but he assured them that every consideration should be paid to their wishes, although he must confess that the question as to how the ratepayers were affected by increased rates could not be lost sight of by the Government.*

Certainly not; the question as to how the ratepayers were affected by increased rates cannot be lost sight of, and it is the bounden duty of the Government to see that corporations are not invested with unlimited powers. What powers they do possess for striking rates are exercised to the utmost by the great majority of them; and, in the case of Dublin, we have a deplorable instance of the straining of these powers. The very same plea that has been put forward by these associated councils in England, has been put forward in Dublin. We have been told here that increased powers were wanted in respect to the water supply, and in carrying out needful sanitary measures, but we know, in this city at least, that these pleas were a mere pretence, put forward to cloak the real objects.

Let the ratepayers of Dublin, therefore, take heart, and exercise their privileges on every occasion when a sinister measure is put forward. The public funds are eaten up here every session of parliament in promoting bills that end, as they generally have been anticipated, in failures, benefiting no one but the immediate promoters, and entailing an increased taxation on one of the most heavily rated, unsanitary, and locally mismanaged cities in Europe.

### INUNDATION OF THE SHANNON.

In the House of Commons, in answer to a question put by Serg. Sherlock, as to whether it is the intention of Her Majesty's Government to introduce, during the present session, any measure for the improvement of the drainage of the river Shannon, Sir M. H. Beach said the question of the drainage of the river Shannon has been one of many measures which has been under my consideration during the short time I have held my present office. I regret that I have not yet had sufficient time to devote my attention to it in order to be able to give the hon. and learned member a definite answer to-day. I am quite aware of the importance of the subject, and the injury inflicted on a large tract of country, owing to the mode in which the drainage of the Shannon has been carried on. It is, however, disputed whether the irrigations complained of are due to the Government works in regard to the navigation of the river. Therefore, I am anxious to make for myself a personal investigation of the matter, and I intend to take an early opportunity of visiting the spot, and thus acquiring, I hope, more distinct and definite information on the subject than I can arrive at in any other way.



# WANTED, WORKS OF ART. NO IRISH NEED APPLY.

A DAILY contemporary of this city has favoured the public with a glowing criticism of a new altar and reredos, procured from Munich, for St. Mary's, Maynooth, with the aid of the subscriptions of the faithful at home, who, we suppose, are all zealous "Home Rulers"—bless the mark! First, let us give an "elegant extract" from the brilliant description of our contemporary, *verbum et literatim*. The italics are ours, as we do not wish the genius who penned it to be relegated to comparative obscurity. The next time he has similar work to perform, let him give our printer's devil a call, and he will, with our leave, lend our friend on the daily a copy of Johnson's Dictionary, and also of Parker's "Glossary" of architectural terms, which may be of some help.

"The reredos is divided into six compartments each—surmounted by elaborately carved crocketed pinnacles. The central pinnacle springs from above the tabernacle, and rests on an arched niche, containing an exquisite specimen of a gothic medieval cross. *The apex of this pinnacle bears another fine specimen of oak carving in a fine bold cross in excellent detail and capital drawing.* All the details have been carefully treated, and the gilding on the moulding margins has been most judiciously produced. *The flanking niches and pinnacles have been dealt with in the most artistic manner, and in these main niches at either side are inserted two of the most exquisite statuettes we have seen in warm colour of the Redeemer and the Blessed Virgin.* The altar is extremely fine. It is divided into three compartments, representing on the antependium, in the centre, the Lamb, and at either side, the Adoration from the Apocalypse, all produced in *alto relievo* carving, and coloured with the most minute care and taste. The effect of the reredos and altar, of which we have attempted to give a faint outline idea, was much enhanced by the admirably stained glass window, from which the mellowed light of the sanctuary is principally obtained. The semi-decorated windows of some of the transept apses also added to the effect produced by one of the finest specimens of ecclesiastical art of which this country can boast. *This reredos and altar have been produced by Messrs. Meyer, of Munich, and should be inspected by those who like to be made conversant with the fact that the re-productions of the great models of church decoration is the only true guide for the artist in God's house.*"

We doubt very much if we have done right in not putting the whole of the above in italics. However, the reader may read it with what emphasis he likes. It is a truly gorgeous description, and we pity those who are so obtuse as not to understand it.

There is another side, however, to the subject, which we cannot pass over, although our remarks may offend the over-sensitive. Was there no artist in London or poor Dublin, capable of executing this altar and reredos? Is the material, as well as the artist, Bavarian and foreign? Could no oak or marble in the British kingdom be found hard or holy enough, virgin white or veiny enough, for the chapel of Maynooth? If we are not mistaken, it is but a short time since several of the United Trades of this city were making a sore protest against some of the Catholic clergy and others of the monastic orders, for sending commissions abroad for what could be as well, if not better, obtained at home. The Irish are asked to subscribe to support the foreign artist, while their own countrymen are pining, through a shameful and wilful neglect, at home. Some months since, we were threatened with an action for

libel by a Christian prelate, for hinting that he procured certain ecclesiastical work from Italy. The prelate in question, we must say, has aided native enterprise and talent, and we believe he is satisfied he has been well served. Those who preach the gospel live by the gospel; but you cannot serve God to the injury of your neighbour. It is not honest to be systematically collecting money for the beautifying of churches, from the poorest of the poor, and then sending orders off to Munich or Rome for often very commonplace ecclesiastical work. We are not clannish in respect of claiming every order for our countrymen at home. If a portion of the work sent abroad were even sent to London, there are many Irishmen and Englishmen who would be benefited, for there are many London employers of labour who are and have been good patrons of our countrymen whom they found talented. We suppose it is deemed sufficient, on the part of a large portion of the clergy, if they condescend to give the contract for the mason-work and carpentry to a native contractor. The people who build the chapels and churches should insist, in future, on having a voice in the conduct of the work for which they subscribe. Let the honest system, even, of open competition be adopted, and let the best men, wherever they reside, have a fair chance. We shall ever oppose, tooth and nail, the present abnormal practice of sending orders and money to the continent, and smuggling, in return, foreign work to grace ecclesiastical edifices built mostly with money subscribed by the hardworking and industrious poor.

## NOTES ON AN ARCHITECTURAL REVIEW OF 1793.

THE following extract from a Dublin magazine (the *Anthologia Hibernica*) for June, 1793, possesses an interest. The author of the volume criticised was no less a person than the noted Sir Richard Morrison, though at the time of the publication, and for long years afterwards, was known as plain Richard Morrison:—

"*Useful and Ornamental Designs in Architecture: composed in the manner of the Antique, and most improved Taste of the present day; the whole being peculiarly adapted for execution.* By Richard Morrison, Architect. Folio. Crosthwaite. Price to subscribers, 12s.; to non-subscribers, 14s.

"This work, which is dedicated to the Archbishop of Cashel, contains twelve plates very neatly engraved. The author has prefixed an historical narrative of the rise, progress, and extent of architecture; and estimates for executing plans and elevations are given in this, the first number of his work. We wish Mr. Morrison had entered more largely into these estimates. Calculating by the *great square* is certainly erroneous; and we apprehend there is some mistake in saying, 'any of these designs may be executed at the rates annexed in any part of Ireland.' Situation, the scarcity, and consequent value, of materials, and the price of labour, must make a vast difference: we doubt at least a tenth in some places. If estimates are of any utility, let them be taken from what is the customary rate, suppose in Dublin, and then some fixed standard may be resorted to. We trust our ingenious author will attend to this remark in his succeeding numbers. . . . These designs exhibit great taste and knowledge in this useful science."

Richard Morrison (afterwards Sir Richard) was a pupil of James Gandon, and he could not have had a better master. Richard's father, John Morrison, was also an architect, and possessed mathematical and scientific ability of no small kind. In fact, Richard Morrison was descended from a race of architects—his father, grandfather, and great grandfather being connected with the building and architectural professions. The family resided for several generations at

Middleton, in the County Cork. Richard Morrison resided for some time at Clonmel, and it was while residing here that his afterwards celebrated son William Vitruvius Morrison was born, in April, 1794. The gifted son of Sir Richard Morrison, alas! died young, in October, 1838, but not too young or before he had proved the possession of abilities that would have done any architect credit.

In the August number of the *Anthologia Hibernica* for 1793 there is a contribution entitled, "Observations on the Giant's Causeway in the County Antrim. By R. Morrison." This paper is a very interesting one, coming from the pen of an architect. We are not aware that this curious basaltic construction on our coast had ever previously or since been described by an architect.

Sir Richard Morrison lived to an advanced age, and his works and those of his son are numerous in this country. Thirty years ago, (if we remember aright, in 1844) when appealed to for his opinion on behalf of Irish art and artists, when a statue in this city to a patriot was about being *jobbed* away, he honestly gave his opinion that there were artists in this country capable of executing any work of art, and that there was no necessity for sending the work out of the country.

## LORD TYRAWLEY'S CASTLE, BALLINROBE.

FORMERLY this town and vicinity had many attractions, of the possession of which it cannot boast at the present time. The extensive castle on the Robe, the former residence of James Cuffe, Lord Tyrawley, is now used as a cavalry barrack. In the wall the antiquary may read the following inscription, the Latin of which the late rector of Ballinrobe thought not very classic:—

DEO : OPT : MAX : COEPTIS : ANNEVENTI :  
GLORIA.

"To God, the best and most Supreme, who prospers our undertakings, be Glory."

"This Castle, now the residence of the Lord of the Manor, was commenced, built, and inhabited by the head of the De Burgh family in the electoral county of Mayo, and in ancient times denominated MacWilliam's county; it having gone to ruin from various casualties, and because of having often changed hands. Sir J. Cuff (knt.) caused it some time ago to be repaired; whose grandson, James Cuff, Esq., inheritor of the estate in the order of succession, when it was at length sadly dilapidated, ordered it now to be restored anew, as well as the neighbouring town to be enlarged, when its market was well nigh extinct, and also that the demesne lands should be ornamented, in the year of our Lord 1752."

The above translation of the tablet was made by the late rector of Ballinrobe, the Rev. James Anderson.

In my youthful days I had frequent opportunities of discovering the truth of the latter statement in the above translation, as in the rere of the old castle may at present be discovered grounds laid out with a geometrical precision little differing from the croquet grounds of the present day; also a structure called the False Bridge, with about a dozen semicircular arches, only wide enough to carry one pedestrian abreast, without any parapets whatever, and leading from the pad-dock on the pigeon-hole side to the fish-pond on the south side.

Between the Castle Barracks and the town is a highly salubrious district known as "the Green," which is a delightful place for the exercise of the military. This enclosure is united at each end by the cavalry and infantry barracks. Opposite the latter, at the end of the Black or "Dark" Walk, is a small "turret" or tower, which, tradition says, is inhabited by the harmless ghost of Lady Hearn. An officer from Gibraltar lately gave us a meagre sketch of her ladyship in one of the London magazines, which merely touched on the sympathies of the Dark Lady for the military, without saying who she was, &c., &c.

C. E.



## THE RUIN AND RE-BUILDING OF NATIONS.

[Being Extracts, with Notes, from "An Essay towards Preventing the Ruin of Great Britain," by George Berkeley, Bishop of Cloyne. First printed in London, A.D. MDCCXXI.]

BISHOP Berkeley lays heavy stress on the evils begot of luxurious living, in eating, drinking, dressing, and amusement, that corrupt instead of elevate the minds of the people. In this country and England, wine-drinking, intriguing, and masquerading were carried on to a frightful length in the last century; but even at present, under other forms, the evil exists. We think it is as well that we should re-produce the whole of our great countryman's observations on these excesses; although a sentence or two here and there may be not exactly to the point, yet as a whole the relevancy of his remarks must be admitted.

"But dress is not the only thing to be reformed. Sumptuary laws are useful in many points. In former times the natural plainness and good sense of the English made them less necessary. But ever since the luxurious reign of Charles II., we have been doing violence to our natures, and are by this time so much altered for the worse, that it is to be feared the very same dispositions that make them necessary will for ever hinder them from being enacted or put in execution.

"A private family in difficult circumstances, all men agree, ought to melt down their plate, walk on foot, retrench the number of their servants, wear neither jewels nor rich cloths, and deny themselves expensive diversions; and why not the public? Had anything like this been done, our taxes had been less, or, which is the same thing, we should have felt them less. But it is very remarkable, that luxury was never at so great a height, nor spread so generally through the nation, as during the expense of the late wars, and the heavy debt that still lieth upon us."

[Private families now in difficult circumstances, instead of retrenching their expenses, load themselves with greater debts by incurring loans, or mortgaging their property and effects. Appearances must be kept up at any cost; but the evil hour, though delayed for awhile, comes at last, dragging perhaps hundreds of other families into the common ruin. Not a ring will be taken off the finger, not a picture will be taken off the walls, not a servant will be discharged, not a horse or carriage will be dispensed with, for fear the Hon. Mrs. Fiddlefap and her lynx-eyed daughter on their next visit might notice the omission. The accursed pride of our people is something monstrous, and sickening to contemplate. If anything at all is curtailed, it is the wages of the poor labourers or drudges who work for the Fitzblazes and the Fiddlefads. The new fashions must be procured at any cost, the new songs and music, and the Castle Drawing-room and Levee must not be missed on any account. Ah, George Berkeley, you knew much and witnessed much; but, were you in London or Dublin to-day, you well might thunder your ecclesiastical curse upon our ladies of quality and no quality.]

"This vice draweth after it a train of evils which cruelly infest the public—faction, ambition, envy, avarice, and that of the worst kind, being much more hurtful in its consequences, though not so infamous as penury. It was the great art of Cardinal Richelieu, by encouraging luxury and expense, to impoverish the French nobility, and render them altogether dependent on the crown, which hath been since very successfully effected. These and many more considerations shew the necessity there is for sumptuary laws; nor can anything be said against them in this island, which might not with equal force be objected in other countries, which have nevertheless judged the public benefit of such institutions to be of far greater importance than the short sufferings of a few, who subsist by the luxury of others."

[It would be undesirable, perhaps, or impossible at the present time, to enact sumptuary laws to limit the expenses of citizens

in the matter of apparel or food; but a time may come when something tantamount to a sumptuary law may be advisable. The great increase of population in the British Islands, and the indulgence in luxurious and indolent habits, are raising the cost of almost every necessary of life. A future famine and pestilence may show our weakness, and it may become absolutely necessary for the good government of the nation, and for the means of its existence, that a restriction should be put upon the indulgence of a great body of our people. Common sense, however, ought to be sufficient to guide the public; but then common sense is the very thing the bulk of our people will not learn or exercise either in behalf of themselves or their neighbours. "A short life and a merry one," is the motto of a great number, and "everyone for himself."

"It is evident that old taxes may be better borne as well as new ones raised by sumptuary laws judiciously framed, not to damage our trade, but retrench our luxury. It is evident that, for want of these, luxury (which, like the other fashions, never faileth to descend) hath infected all ranks of people, and this enableth the Dutch and French to undersell us, to the great prejudice of our traffic. We cannot but know that, in our present circumstances, it should be our care, as it is our interest, to make poverty tolerable; in short, we have the experience of many ages to convince us that a corrupt and luxurious people must of themselves fall into slavery, although no attempt be made upon them. These and the like obvious reflections should, one would think, have forced any people in their senses upon frugal measures."

"But we are doomed to be undone. Neither the plain reason of the thing, nor the experience of past ages, nor the examples we have before our eyes, can restrain us from imitating, not to say surpassing, the most corrupt and ruined people in those very points of luxury that ruined them. Our gaming, our operas, our masquerades, are, in spite of our debts and poverty, become the wonder of our neighbours. If there be any man so void of all thought and common sense as not to see where this must end, let him compare what Venice was at the League of Cambray with what it is at present, and he will be convinced, how truly these fashionable pastimes are calculated to depress and ruin the nation."

[Berkeley proceeds to disclaim against the encouragement given in his time to masquerades, which he stigmatized as a plague and an abomination as carried on. Neither Venice nor Paris, he thinks, even knew such expensive ruinous folly as our masquerades, which he believed to be a contagion of the worst kind, being alone sufficient to influence the several appetites for gaming, dressing, intriguing, luxurious eating and drinking. Our modern dances in high life are little better at present than the old masquerades, but we will draw a veil over the corruptions that attend them and follow in their wake.]

"It is not to be believed what influence public diversions have on the spirit and manners of a people. The Greeks wisely saw this, and made a very serious affair of their public sports. For the same reason, it will, perhaps, seem worth the care of our legislators to regulate the public diversions by an absolute prohibition of those which have a direct tendency to corrupt our morals, as well as by a reformation of the Drama, which, when rightly managed, is such a noble entertainment, and gave those lessons of morality and good sense to the Athenians of old and to our British gentry above a century ago; but for these last ninety years hath entertained us, for the most part, with such wretched things as spoil, instead of improving, the taste and manners of the audience. Those who are attentive to such propositions only as may fill their pockets, will probably slight these things as trifles below the care of the legislature. But I am sure all honest-thinking men must lament to see their country run headlong into all these luxurious follies, which it is evident have been fatal to other nations, and will undoubtedly

prove fatal to us also, if a timely stop be not put to them."

[The Drama, indeed, when rightly managed, is capable of effecting great good, but, as it is at present ordered, it is demoralizing and mischievous in the extreme. True public forms of the Drama, there is little, indeed. The government, to a small extent, exercises some vigilance in the censorship of plays, but our lessees and stage managers at present are doing all they can to degrade the Drama, and they are backed by a vitiated public taste, which is humiliating to witness. Only a few days since in London an effort was made to introduce on the stage, in an English dress, some of the most corrupt works of French playwrights. Happily for the protection of public morality, the Lord Chamberlain refused to sanction the infamy. In Dublin, as well as London, the most senseless, trashy, and outrageous representations on the stage take place, having nothing to recommend them except a little scenic display, in which size, red paint, gold leaf, tinfoil, gaslight, and other side-lights, are introduced. If one were to stand upon the stage of these theatres in the broad glare of daylight, he would, indeed (if a lover of art) have reason to curse the monstrous and brutal daubs nicknamed art. The delusion and corruption of the stage are supported in these days by the abuse of another power which scarcely existed in Berkeley's time. We have a Press which degrades its mission by upholding dramatic imposture, and by its endeavours to dictate and mislead public opinion. The greater portion of our Press are the apologists of wretched farra-goes of thinly-veiled obscenity, instead of taking up the lash, and, by a system of severe but honest criticism, lashing the promoters of such theatrical exhibitions "naked through the world." Would that it were possible to lash them, for it would be a punishment not at all commensurate with their deserts. *Quis custodiet ipsos custodes?* Who shall guard the guards themselves? Who shall guide and correct the Press itself? Let the honest members of the profession only do their duty constantly, and the Press and the Drama will be reformed together. A National Theatre is one of the wants of our time, and we believe it will one day spring up, when the works of Shakespeare, Farquhar, Congreve, Sheridan, and Goldsmith, will be put before the public, purged of their slight imperfections, and applauded as they deserve by a truly appreciative public taste. We are told, indeed, that the works of our great dramatists "spell ruin" to our modern theatrical proprietors, but who may they thank for the national degeneracy? Who, indeed, but the half-educated usurpers who now cater for the public which they and their immediate predecessors have done their very best to demoralize and corrupt, with the aid of their servile and pliant instruments on the Press.]

(To be continued.)

## THE BELFAST ARCHITECTURAL ASSOCIATION.

A MEETING of this association was held at the Museum, on Monday evening, 16th ult.

Mr. SAMUEL P. CLOSE occupied the chair.

Mr. R. M. Young, C.E., read a paper on "The Planning of Ancient Churches," illustrated by a number of ground plans of ecclesiastical edifices of the earliest type. The lecturer gave a brief sketch of the position in which the Christian Church found itself in the early part of the fourth century, when for the first time it enjoyed the legal right of erecting places for its public worship. The internal arrangements of the Roman Basilica, or Court House, with its various adjuncts, were then described, and the reasons adduced why the early Christians adopted this model, with some slight modifications, for their Ecclesiæ, or assembly halls. Some of the Pagan basilicas afterwards used for churches, including those at Treves, still used for Protestant worship, and that at Pergamos, now



unroofed, were described—all are rectangular. A typical Christian basilica, containing all the parts referred to in the old writers, was then explained in all its details—a diagram of the Church of S. Clemente at Rome being shown as the one now remaining most nearly approaching it. But by far the most important of these structures must have been the great five-aisled Church of S. Peter, erected about A.D. 330, on the site of the Circus of Nero, where tradition pointed to the martyrdom of the apostle. Although every vestige of this building was removed to give place to the more famous modern S. Peter's, fortunately drawings were then carefully made, which enable us to judge of what this first and grandest of basilicas was in its pristine state. The *atrium*, or forecourt, was of enormous size, and had in front of it two lofty bell-towers; but these probably not original. The nave of church was nearly 400 ft. long, and 80 ft. wide, and the extreme width, including aisles, was 212 ft., so that the area was about the same as that of the great cathedrals of Seville or Milan. The *bema*, or sanctuary, had the singular arrangement of transepts extending beyond the outer walls, one arm of which was connected to a circular building of considerable size, whilst a similar one stood a little way from it on same side, and both were placed on the *spina* of the ancient circus. Although one of these was popularly thought to be the tomb of Honorius, and the other that of S. Andrew, there are strong reasons for thinking that they were erected by Constantine to preserve the remains and honour the memory of Peter, apostle and martyr, and those who suffered with him in the persecution of Nero. At a later period such tombs became more intimately connected, and finally were usually placed in an under chapel or crypt below the tribune or apse, of which a good example exists at S. Apollinare in Classe Ravenna. In addition to the large assembly halls, the early church required another class of building for the proper celebration of the initiatory rite of baptism, which, for good reasons, it was considered should not be performed in the church proper. In designing such a building it was necessary to provide ample space for large numbers of spectators, and at the same time suitable provision for the officiating minister and the adult applicants for the rite. These conditions were perfectly met by the adoption of an octagonal plan. The earliest baptistery known to exist in its original form is that of S. Giovanni in Fonte, Ravenna, erected *circa* 400; it has the large white marble cistern or font, also octangular, and having a small ambo or pulpit for the minister on one side, still remaining in the centre of the building, which is covered with a dome beautifully decorated in Mosaic, and forming altogether one of the most interesting and important buildings in Christendom, dating from the fifth to the tenth century. Descriptive particulars were given of the plans of several churches in which the circular or polygonal form had been adopted, both for public worship and for ritual and ceremonial purposes; of these, the very remarkable galleried and domed Church of San Vitale, at Ravenna, was explained in detail. It was remarkable as having so completely captivated the fancy of Charlemagne as he passed through Ravenna on his way home from being crowned Emperor at Rome, that he resolved to erect a church of the same style in his capital, to serve also as his own mausoleum. The result has been the Dom Church of Aix-la-Chapelle, a building which, although much mutilated by later additions, is still of the highest interest in the history of art. The remains of the Church of S. Lorenzo, at Milan, of the fifth century, were referred to as the earliest example of a circular church enclosed in a square ground plan, further interesting from having grouped around it a baptistery of the same date and several tomb chapels, with a magnificent colonnade of antique Roman columns standing in one of the main streets of the city, in the centre of which there is the entrance to the *atrium*. The last example described

was that of the Church of S. Michael, near the city of Angoulême, where a small specimen of an octangular building is to be seen constructed entirely of stone, both walls and roof, admirably adapted for the requirements of worship, and exceedingly beautiful both in its interior and exterior appearance.

#### CREMATION AS A SANITARY AGENT.

(Continued from page 47.)

Who can doubt now that the question is one of vital economy to the people of this country? This is still no reason why it should not be considered from the point of view of sentiment. And what has sentiment to urge on behalf of the present process? Let us see what the process is. So far as I dare! for could I paint in its true colours the ghastly picture of that which happens to the mortal remains of the dearest we have lost, the page would be too deeply stained for publication. I forbear, therefore, to trace the steps of the process which begins so soon and so painfully to manifest itself after that brief-hour has passed when "she lay beautiful in death." Such loveliness as that I agree it might be treason to destroy could its existence be perpetuated, and did not Nature so ruthlessly and so rapidly blight her own handiwork, in furtherance of her own grand purpose. The sentiment of the survivor on behalf of preserving the beauty of form and expression, were it possible to do so, would, I confess, go far to neutralize the argument based on utility, powerful as it is. But a glimpse of the reality which we achieve by burial would annihilate in an instant every sentiment for continuing that process. Nay, more; it would arouse a powerful repugnance to the horrible notion that we too must one day become so vile and offensive, and it may be, so dangerous; repugnance surmountable only through the firm belief that after death the condition of the body is a matter of utter indifference to its dead life-tenant. Surely, if we, the living, are to have sentiments, or to exercise any choice about the condition of our bodies after death, those sentiments and that choice must be in favour of a physical condition which cannot be thought of either as repulsive in itself, or as injurious to others.

There is a source of very painful dread, as I have reason to know, little talked of, it is true, but keenly felt by many persons at some time or another, the horror of which, to some, is inexpressible. It is the dread of premature burial; the fear lest some deep trance should be mistaken for death, and that the awakening should take place too late. Happily, such occurrences must be exceedingly rare, especially in this country, where the interval between death and burial is considerable, and the fear is almost a groundless one. Still, the conviction that such a fate is possible, which cannot be altogether denied, will always be a source of severe trial to some. With cremation no such catastrophe could ever occur; and the completeness of a properly conducted process would render death instantaneous and painless if by any unhappy chance an individual so circumstanced were submitted to it. But the guarantee against this danger would be doubled, since inspection of the entire body must of necessity immediately precede the act of cremation, no such inspection being possible under the present system.

In order to meet a possible objection to the substitution of cremation for burial, let me observe that the former is equally susceptible with the latter of association with religious funeral rites, if not more so. Never could the solemn and touching words, "Ashes to ashes, dust to dust," be more appropriately uttered than over a body about to be consigned to the furnace; while, with a view to metaphor, the dissipation of almost the whole body in the atmosphere in the ethereal form of gaseous matter is far more suggestive, as a type of another and a brighter life, than the consign-

ment of the body to the abhorred prison of the tomb. I do not propose to describe here the processes which have been employed, or any improved system which might be adopted for the purpose of ensuring rapid and perfect combustion of the body, although much might be said in reference to these matters. There is no doubt that further experiments and research are wanting for the practical improvement of the process, especially if required to be conducted on a large scale. Something has been already accomplished, and with excellent results. I refer to recent examples of the process as practised by Dr. L. Brunetti, Professor of Pathological Anatomy in the University of Padua. These were exhibited at the Exposition of Vienna, where I had the opportunity of examining them with care. Professor Brunetti exposed the residuum from bodies and parts of bodies on which he had practised cremation by different methods, and the results of his latest experience may be summarized as follows: The whole process of incineration of a human adult body occupied three and a-half hours. The ashes and bone earth weighed 1.70 kilo., about three pounds and three-quarters avoirdupois. They were of a delicate white, and were contained in a glass box about twelve inches long by eight inches wide and eight deep. The quantity of wood used to effect absolute and complete incineration may be estimated from its weight, about 150 pounds. He adds that "its cost was one florin and twenty kreutzers," about two shillings and fourpence English. The box was that marked No. IX. in the case, which was No. 4,149 in the catalogue: Italian. In an adjacent case was an example of mummification by the latest and most successful method. By a series of chemical processes it has been attempted to preserve in the corpse the appearance natural to life, as regards colour and form. Admirable as the result appears to be in preserving anatomical and pathological specimens of the body, it is, in my opinion, very far from successful when applied to the face and hands. At best a condition is produced which resembles a badly-coloured and not well-formed waxen image. And the consciousness that this imperfect achievement is the real person and not a likeness, so far from being calculated to enhance its value to the survivor, produces the very painful impression, as it were, of a debased original; while, moreover, it is impossible not to be aware that the substitution of such an image for the reality must in time replace the mental picture which exists of the once living face lighted by emotion and intelligence, of which the preserved face is wholly destitute.

To return to the process of cremation. There are still numerous considerations in its favour which might be adduced, of which I shall name only one—namely, the opportunity it offers of escape from the ghastly but costly ceremonial which mostly awaits our remains after death. How often have the slender shares of the widow and orphan been diminished in order to testify, and so unnecessarily, their loving memory of the deceased, by display of plumes and silken scarves about the unconscious clay. And again, how prolific of mischief to the living is the attendance at the burial ground, with uncovered head and damp-struck feet, in pitiless weather, at that chilling rite of sepulture. Not a few deaths have been clearly traceable to the act of offering "that last tribute of respect." Perhaps no great change can be expected at present in the public opinions current, or rather in the conventional views which obtain, on the subject of burial, so ancient is the practice, and so closely associated is it with sentiments of affection and reverence for the deceased. To many persons any kind of change in our treatment of the dead will be suggestive of sacrilegious interference, however remote, either in fact or by resemblance to it, such change may be. Millions still cherish deep emotions connected both with the past and the future in relation to the "Campo Santo" and the annual "Jour des Morts." And many of these might be slow to learn that, if



the preservation of concrete remains, and the ability to offer the tribute of devotion at a shrine be desired, cremation equally, if not better than burial, secures those ends. On the other hand, I know how many there are, both in this country and abroad, who only require the assurance that cremation is practically attainable to declare their strong preference for it, and to substitute it for what they conceive to be the present defective and repulsive procedure. A few such might, by combination for the purpose, easily examine the subject still further by experiment, and would ultimately secure the power if they desired to put it in practice for themselves. And the consideration of the subject which such examples would afford could not fail to hasten the adoption of what I am fairly entitled to call the natural, in place of the present artificial, treatment of the body after death.

### THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE Institute in London, as well as our poor weakly body, appears to be not in a very thriving condition. The civil engineers can expend thousands yearly on social re-unions and gatherings; but the architects, for want of a proper *esprit de corps*, find it rather difficult to preserve their dignity while dispensing their awards in the interests of the profession. We fear the expenditure in the London Institute has latterly been beyond the income, or larger than prudence would dictate. An effort is about being made to raise considerably the entrance fees to members, besides raising the terms of subscription. We are nearly certain that this is an ill-advised course, and that it is likely to lead to a withdrawal of several members, and, amongst them, those who are not the least unable to pay the advanced subscription. The time is not favourable to such a course, and we are of opinion that the financial difficulty ought to be met in some other way. The flood of shallow architectural criticism which has of late years so much inundated the public and the professional journals in some instances, has worked incalculable mischief to the true interests of architecture as an art, and to the practice of the profession. There are members in the Institute who are not guiltless, and, to gratify some whim or other, have ridden a hobby which doubtless they will one day regret, if they do not at present. There are among our architectural brethren in London too many of the class of would-be leaders and dictators, and who, in possessing the knack of writing smart things, ape the leadership of architectural opinion. These men respect no person's opinions but their own; they will not be led, though they endeavour to drive others as they would drive a flock of sheep. Truly these are ticklish days for the architectural profession, and it behoves the council of the Institute at least to think long and seriously, and act wisely, and with the view of enlisting greater strength, and making their body a really representative one, entitled to respect and support, and able to command it.

### THE CORPORATION AND THE GAS QUESTION.

THE ratepayers of Dublin justly complain of the heavy burden of taxation which presses almost to earth a large body of the struggling shopkeeping class, who are less able to bear it. But, while complaining, why do they not exercise the power which they undoubtedly possess, by combined action, to not only prevent an increase of taxation, but lighten the burden which they already bear? We have more than once put this question to our citizens, and we cannot come to any other conclusion than that the vast majority of our citizen taxpayers are the most spiritless creatures on God's earth. Year after year

they witness the glaring schemes brought forward by members in the Corporation and by outside parties aided by the influence of the Corporation, and yet they sing dumb, or growl behind their counters or to their customers, without taking public action in matters which are life or death to many of them.

There are two Gas bills now before parliament, which have a closer relationship than most people are aware. The Corporation seek for powers to purchase the Gas Company's works, and to pay them five per cent. on the capital subscribed. In the event of the shareholders not being satisfied, a railway arbitrator is to be called in, and his award is to be final. On the other hand, the Gas Company have promoted a bill to reduce the illuminating power, and to increase the price of gas, besides increasing the capital by some fifty thousand pounds. For the purpose of enabling certain gentlemen to play into one another's hands, opposition has been entered by the promoters of each to the other. Let it be clearly understood that, no matter what may be the ultimate result, a number of interested gentlemen and their friends, both in the Corporation and in the Gas Company, will be benefited at the ratepayers' expense, by the promotion and carrying forward to a certain stage of both bills. The lawyers, engineers, and the witnesses on both sides will go to London, in addition to a number of witnesses who are always obtainable in London, and whose livelihood is obtained by watching the progress of opposed bills. We have described before the characteristics of these classes of London witnesses who are picked up in London, who will do their duty without scruple on whatever side they are enlisted, and are ever ready

"To swear a hole through a double deal board,  
And die on the floor of the House of Commons."

It is truly high life to lawyers, engineers, and witnesses to go to London, and eat fat dinners, and drink good wine, and sleep on soft feather beds in Westminster Palace Hotel or other contiguous ones; but it is something akin to death to ratepayers and perhaps poor shareholders.

In regard to the Gas Company, we are not so inconsiderate as to think that gas can be supplied continually at a loss, if coals continue at a high price; but coals have not continued for any length of time at an abnormally high standard as would warrant the Gas Company in seeking for the powers their bill indicates. We are not opposed to the principle of a corporation of a town undertaking the management and supply of the gas; but, in the case of Dublin, we have already stated why we are opposed to the Corporation undertaking a duty which, under the present condition of corporate legislation, they are utterly unfit to undertake or manage with credit. With several urgent wants unattended to, particularly in a sanitary direction, and with a demonstrative incapacity evidenced for years past in every department, the Corporation of Dublin are unfitted to undertake any new responsibility. They are weekly shewing their incompetence in everything they undertake; and, if ever a corporation or a corporate staff ought to feel ashamed of its work, it is in the matter of the Dublin Main Drainage that our Corporation ought henceforth hide its diminished head. Bungling has succeeded bungling for a series of years in the matter of our Drainage scheme, and thousands upon thousands of pounds have been wasted, without any practical result.

If we freely spoke our mind upon the connections and surroundings of these two Gas Bills, it is likely that the IRISH BUILDER would soon figure in the Queen's Bench in an action for libel against one or more individuals who are pulling the strings to their own liking. From what we have written, however, let those of our citizens who are seriously interested in the question take a hint, and speak and act as becomes honest and intelligent men. A united protest is needed at this moment, not to crush one job, but a series of jobs.

### PUBLIC RIGHTS AND PUBLIC NUISANCES.

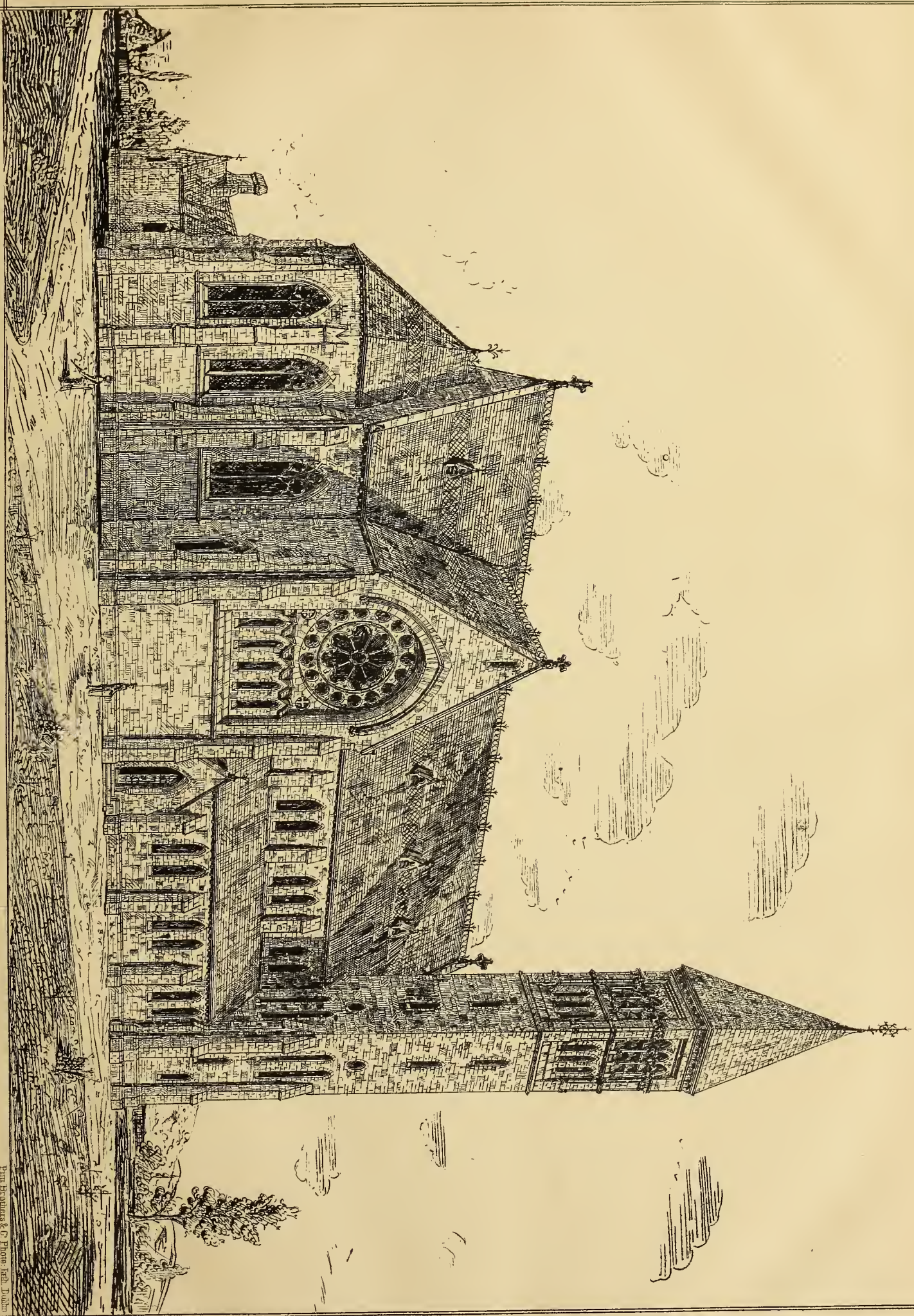
#### SECOND ARTICLE.

WITH the object of affording needful information to the mass of the people regarding their rights and privileges, and the duties that their local rulers are bound to perform in a sanitary direction, we continue the subject opened in our last issue. There are many householders and ratepayers who grievously suffer an injury by a nuisance or nuisances, and who are in doubt how to move to effect a remedy. Even the officers of the sanitary authority will shrink from affording him information, for fear it might clash with their own interests or place them in a dilemma.

The 10th section of the Nuisances Removal Act, 1855, provides for persons who desire to give notice of a nuisance, if they feel aggrieved. This notice may be given by the sanitary inspector, or any paid officer of the sanitary authority, or any two inhabitants of the parish or district to which the nuisance relates, or the relieving officers of the union or parish, or any constable or officer of the constabulary or police force of the district or place; if the premises be a common lodging-house, any person appointed for the inspection of the same.

In regard to overcrowding—a very common occurrence in the common lodging-houses in many of our back streets and lanes—the Sanitary Act of 1866 includes a most important extension of the former Act. No action can be taken unless the overcrowding takes place from more than one family being occupants. There is a defect here, for it is even possible for one family to overcrowd their place of living, which is often confined to a single room. The 29th section of the Nuisances Removal Act provides that whenever the medical officer of the district, if there be one, if not, whenever two qualified medical practitioners certify to the local authorities that any dwelling is so overcrowded as to be dangerous or prejudicial to the health of the inhabitants, and the inhabitants shall consist of more than one family, the local authority shall cause such proceedings to be taken before the justices to abate such overcrowding, and the justices shall thereupon make such order as they think fit, and the person permitting such overcrowding shall forfeit a sum not exceeding forty shillings. If notice has been received by the sanitary authority of the existence of a nuisance on any premises, an order for entry to examine said premises may be issued, and if entry be refused, proceedings can be taken in virtue of the Act to compel the owner to allow the examination to take place. If the nuisances complained of are proved, an order to abate the nuisances within a certain time can be issued by the justices or magistrates. Should the time expire and the nuisance continue, another notice can be served on the defaulting party, informing him that compulsory proceedings will be taken; and a summons should then be obtained from a justice by the inspector of nuisances, requiring the person by whose act, default, permission, or sufferance the nuisance arises, to appear before two justices in petty sessions in order that the complaint may be heard and adjudicated upon. It will then be the duty of the justices, if the case be proven, to make an order in writing requiring the removal of the nuisance, with all costs of proceedings up to that time. Such orders may require the providing of sufficient privy accommodation, proper drainage and ventilation, and such cleansing, disinfection, or purification of the premises as is needed to make the place habitable. Cognizance in such orders may be taken of injurious pools, ditches, gutters, water-courses, privies, urinals, cess-pools, drains, ashpits, or other receptacles, that are likely to prove injurious to the health from their situation or condition. In the case of animals, whose keep may create the nuisance, an order may also be procured to remedy or remove the evil. The sanitary authority itself may abate and remove a nuisance.





Design for a Church by W. J. Bennett.



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sance, and recover costs not exceeding one year's rack-rent of the premises, either by an action in a court of law or in a county court, or summarily before the magistrates upon a summons.

If any structural works are required to abate a nuisance, the justices or magistrates may order such works to be executed under the direction of the sanitary authority; but it must be observed there is a power of appeal to the quarter sessions against such order, and, in fact, against any order under the above acts; and the order will stand over if the person against whom the order has been made within seven days takes the necessary steps to have the appeal heard and determined. If the person through whose act or default the nuisance has arisen cannot be found, or if the owner or occupier of the house or premises cannot be found, the costs of the work executed in the abatement of the nuisances or of its future prevention will have to be defrayed out of the sanitary rates.

With all these matters and proceedings the ratepayers and intelligent householders at large ought to make themselves acquainted. The knowledge will save them much trouble, annoyance, and expense, and ruinous litigation may, in consequence, be often avoided. The law is a profession, and lawyers are not to be always blamed for taking up a case, even where there is little chance of success. Disappointed or quarrelsome persons will ever exist, who will go to law guided more by their passion than their reason, and will not see their folly until they feel its effects in an empty purse or broken-down health. On the other hand, it is the duty of every citizen to appeal to the law in the protection of his rights, and it is the duty of his neighbour to assist him, for the grievance that affects one may soon affect the other, and mutual support and sympathy is desirable.

The power of appeal afforded by the law to all citizens against any order made by the magistrates or sanitary authorities, is a right which should be exercised if any act of injustice be attempted by the local powers through the unwarranted representations of any of their officers who may be led to make a false or colourable report from vindictiveness or other causes. It sometimes happens that magistrates make orders for the abatement of nuisances, the removal or remedy of which should be the work of the sanitary authority. The Acts are not rarely interpreted wrongly, and the onus thrown upon the shoulders of persons who have no right to be subjected to perform work that devolves upon the sanitary or local authorities. But of this more hereafter.

### THE RENOVATED MAIN DRAINAGE SCHEME.

THE present issue of our journal may probably be in the hands of our readers before we hear the result of the report of Messrs. Bazalgette and Neville on the tenders sent in for the amended drainage scheme. This bungled scheme has been several times reported upon by its joint engineers. The first tenders on the original scheme startled both the committee and the council, who never dreamt that the estimates would have been so large. The question, after undergoing an edifying discussion, was referred back to the committee, and from the committee to the engineers, and these latter gentlemen explained the reasons of this, that, and the other thing in connection. Tenders were recently advertised for, again for the modified work, and the lowest tender appears to be no less a sum than £428,000, while the highest reaches £526,000—a good bit over half a million. Seven contractors, we are told, tendered for the whole works, and one for Nos. 2 and 3 contracts only. The committee were again thunderstruck, and postponed their acceptance, pending the report of the two engineers. It is probable we have not seen the last of these reports yet, for no doubt these continuous reports are lucrative

jobs to the engineers and others, though they are the very reverse to the ratepayers.

We scarcely know at this moment how many years this Main Drainage scheme has been before the public, dragging its slow length along, and acting like a cancer by its expense year by year, eating up thousands of pounds by a variety of proceedings in connection. Its completion will, we fear, be in part a twentieth-century job as well as a nineteenth-century one. A staff of officials, assistant engineers, and foremen was appointed several months since, in anticipation of the important work that devolved upon their shoulders. What are all these assistants, deputy, and deputy sub-assistants doing now? Are they receiving salaries for doing outside work, or are they kept on like a stock company, in expectation that their services will be wanted immediately? Truly this Main Drainage scheme has been a veritable *drainage* scheme to this unfortunate city.

### CIVIC LYRICS.—No. LVIII.

#### SLEEPING TOM.

An Old Tom slept  
While the mice had crept  
Where the crumbs were left  
In the Servants' Hall.  
Some sat on the mat,  
And watched the Tom cat,  
While the rest waxed fat  
On each sweet windfall.  
Still the Old Tom snored,  
And uttered no word,  
For it never occurred  
To him at all  
That the mice made nests  
In the Civic chests,  
And held inquests  
In the Servants' Hall.

But "murder will out,"  
Though the mice may shout,  
For the Old Tom's mouth  
Is open to bawl.  
Though his neck is bell'd,  
His nose is not held,  
And there's rats now smell'd  
In the Servants' Hall.

Haste, rat-catchers, haste,  
With your drugs and paste,  
Ere the wilful waste  
Brings the woeful fall!  
Oil the Sword and Mace  
In this year of grace,  
And the rats give chase  
From the Servants' Hall!

CIVIS.

### INSTITUTION OF CIVIL ENGINEERS (ENGLAND).

THE annual dinner of the Institution of Civil Engineers, which was held at Willis's Rooms, London, on the 21st ult., was on a grand scale. The speeches delivered partook, however, more of the after-dinner order of congratulation than of any marked display of a practical nature. Covers were laid for 250, the dinner was *recherché*, and the arrangements were of the most perfect kind. The chair was occupied by Mr. Harrison, president of the institution. The guests included most of the more eminent civil engineers and scientific men of the day. Addresses were delivered and toasts responded to by Prince Christian, the Lord Chief Justice, the Earl of Carnarvon, the Earl of Devon, Earl Granville, Mr. Ward Hunt, Mr. Cross, Home Secretary; and General Sir Fred. Chapman, Inspector-General of Fortifications.

In responding to the toast, "The Prosperity of the Institution of Civil Engineers," Earl Granville observed, in the course of his remarks: "I have been struck by an anecdote told by your excellent president, who between forty and fifty years ago, went to no less a person than Mr. Telford, and Mr. Telford discouraged him by saying he was wrong to enter that profession, as it had done all the great things which were to be done, and what little remained would be confined exclusively to the very few persons who were

still in the profession. I think my excellent friend, Mr. Harrison, was right in not having been discouraged by that eminent person, for it is clear that the world goes on increasing, and that your conquests over things materially for the advantage of mankind will, like other great conquerors, only make you more insatiable as to the future. There is one epithet which I think may be applied with justice to this body, particularly this evening. I think, in one sense you are the most hospitable body I know. I say this, not because you have been good enough to invite me to this intellectual feast to-night, but in a very much larger sense. I believe that no class of men, since the world began, have done so much, during the last fifty years, to bring men together, both in mind and body; for by your science you have shortened the distance for those who travel over land or water, and have enabled thought to speed as rapidly as it does now. I believe that in that way you have exercised one of the most civilizing influences, not only by increasing the wealth of the world in an incredible degree, but also by the exercise of a great and humanising element. I pray that you may go on in your glorious and great work, that you may meet with prosperity for yourselves, and be enabled to afford it indirectly to others. In proposing the toast I ask you to couple with it the health of Mr. Harrison, who fills the proud position of president of this institution this year. It would be idle for me to talk to you of a man whom you know better than I do, and I can only say I have known him nearly a quarter of a century, and happening once to speak of him to one of the most cautious of your body (Sir W. Cubitt), I said, 'Am I right in having consulted Mr. Harrison?' Sir William replied, 'All I can say is that Tom Harrison is one of the soundest and most honest men I ever knew.'

### THE CORPORATION AND THE GAS BILLS.

Mr. John McEvoy, late chairman of the Kingstown Commissioners, has published a statement which, we think, deserves extended publicity. We have more than once commented on the Corporation Gas scheme, and we will, probably, soon again let a little more light on Corporate practices anent the first as well as the repatched bills. For the present, we will allow Mr. McEvoy to speak:—

Concerning these bills, it may be well to point out their inconsistency with the case presented on behalf of the Corporation Gas bill of last session—the promoters of last year and of this being substantially the same.

The case for the bill of last session was, that after the payment by the Corporation of six per cent. to the shareholders in the Gas Company, and £2,300 on life annuities to the retiring directors and officers, a surplus profit over and above all expenses would remain and be applicable to the reduction of city taxation, amounting to—according to Mr. Cotton, £23,715; Mr. Church, £29,472; Mr. Cleminshaw, £36,554; and Mr. Stevenson, £42,300—the sole conditions for achieving this result being a change from inferior to superior management, and an expenditure of some £13,000 on improvements in the carbonizing and other departments, the price of gas and illuminating power being unaltered.

The suggested reform in the management has since taken place, Mr. Cotton himself becoming the manager, fully empowered to avoid the errors and to carry into effect the improvements his predecessors had overlooked; and yet one of the first acts of this reformed management is to promote a bill to decrease the illuminating power in one district and to increase the price in another, and thus add to in both 1s. per 1,000 feet, or 20 per cent. to charges, sworn to as already sufficiently remunerative and productive of large surplus over the fair dividend of six per cent.

And thus, in the face—not of an increase, but of a considerable reduction in the price of coal—side by side with this bill of the reformed Gas Company, is that of the reformed Corporation of Dublin. When the latter reformed body lost their bill of last session, they could, had they believed in their own case, have proceeded as the corporations of Leeds, Glasgow, and other places have proceeded when they sought the acquisition of gas works—that is, by putting forward a claim to set up new



and competing works. Instead, an illusory, if not dangerous, scheme of purchase, under the Railways Act of 1859, is embodied in a bill, to be promoted at the expense of the ratepayers of Dublin. Having had searches made, I am able to state that no corporation has had gas works transferred to it under this Railway Act. Anyone who will read the Act will see the absurdity of the Corporation scheme, and the danger to the ratepayers if Parliament sanctioned the application to the Dublin Gas Works of the principles which regulate the compulsory purchase of private property by Railway Companies.

I would suggest that copies of those bills should be laid on the table at the Chamber of Commerce and other public places, for the inspection of those interested, before it is too late to discuss their provisions.

We will just add one word more at present. If the citizens and ratepayers allow themselves to be again hoodwinked in the above matter, they deserve to be stigmatized as the most spiritless and soulless people in the British Islands.

### THE ROYAL IRISH ACADEMY.

At the annual meeting of the Academy, held since our last issue, there was, we are glad to note, a large attendance. The Rev. J. F. Jellett, S.F.T.C.D., President, occupied the chair for the last time, the term of his presidency of five years having expired.

The Rev. Samuel Haughton proposed that Dr. William Stokes be elected president. He had been Dr. Stokes's pupil in medicine, and whatever he knew of scientific medicine he had acquired under his teaching, so that he spoke from personal knowledge of Dr. Stokes's peculiar qualifications to fill the chair which Professor Jellett, to the regret of the Academy, was about to vacate. Formerly it was considered necessary that the president should be an astronomer and a mathematician; but now, thanks to the labours of Dr. Stokes and others like him, medicine had attained such a position in the estimation of men of literature and science, that they that evening eagerly sought to have in the presidential chair a member of the medical profession.

Samuel Ferguson, LL.D. (Vice-Pres.), in seconding the motion, said he did so with much pleasure, not because Dr. Stokes occupied the front rank in the medical profession, and was the author of works that would live long after all present had passed away, but because he possessed one quality which conferred great benefits upon any public body with which it was brought into contact—namely, that power of imparting his own enthusiasm in the pursuit of knowledge, and those with whom he held intercourse. With him the love of truth came first, and this, his native land, and its honour, next, before every other consideration. He knew as well how to repress as how to excite, and under his presidency nothing unworthy of the dignity of the Academy would flourish, and they might fear nothing for the perfect independence of the institution.

The Academy then proceeded to ballot for president, honorary members, &c., which resulted as follows:—

**President**—Dr. Stokes, D.C.L., F.R.S.

**Honorary Members**—Department of Science—Marcellin Berthelot, Paris; Johan Von Lamont, Munich; Thomas Henry Huxley, London.

**Committee of Science**—W. K. Sullivan, Ph.D., Sec. of the Academy; Rev. Samuel Haughton, M.D., F.R.S. (Vice-President); Robert MacDonnell, M.D., F.R.S.; E. Perceval Wright, M.D., F.L.S.; Robert S. Ball, LL.D., F.R.S.; David Moore, Ph.D., F.L.S.; John Casey, LL.D.; Thomas Hayden, F.R.C.S.I.; Rev. J. H. Jellett, B.D., S.F.T.C.D.; Alex. MacAlister, L.R.C.S.I.; and John Purser, M.A.

**Committee of Polite Literature and Antiquities**—John T. Gilbert, F.S.A., Librarian; John Kells Ingram, LL.D., Sec. of Council; Samuel Ferguson, LL.D. (Vice-President); William J. O'Donnovan, LL.D.; Alexander G. Ritchey, LL.D.; John R. Garstin, LL.B., F.S.A., (Treasurer); Rev. William Reeves, D.D.; Lord Talbot de Malahide, F.R.S. (Vice-President); Rev. Thaddeus C. Mahony, D.D., and D. F. MacCarthy, Esq.

Dr. Ingram, Secretary of Council, read the report for past year, which was adopted, and the additional grants were sanctioned.

The President said he resigned with feelings of pleasure and confidence—pleasure, because he resigned the office to an illustrious Irishman, whom he was proud to call a personal friend; and confidence, because he felt, as every Irishman must, that there was no man fitter to occupy the position than the man they had chosen that night.

Dr. Stokes then ascended the president's chair, vacated by the Rev. Professor Jellett, and was received with loud applause. He said he had to thank the Academy most sincerely, and particularly the ex-president for all he had done for the Academy generally, and the gentlemen who had proposed him. It was true he had long worked for science, and he had worked without looking for reward—he had worked for love, and he believed that was the best way to work at science; but when reward came it was gilded with the approbation of their fellow men, and it was then doubly precious. He was not a young man, but if God spared his life it would be devoted to the interests of the Academy, and he trusted under his hands it would not decline from the position it had attained under the presidency of the excellent and illustrious men who had been his predecessors.

The ballot for the election of officers resulted in the election of the following, viz.:—Treasurer—John R. Garstin, LL.B., F.S.A. Secretary to the Academy—Perceval E. Wright, M.D. Secretary to the Council—John Kells Ingram, LL.D. Secretary of Foreign Correspondence—Robert M'Donnell, M.D. Librarian—John T. Gilbert, F.S.A. Clerk of the Academy—Edward Clibborn.

On the motion of the Rev. Dr. Salmon, seconded by Colonel Meadows Taylor, a vote of thanks was passed to the ex-president.

The election of Dr. Stokes to the presidential chair of the Royal Irish Academy will be received everywhere with the one feeling. If he is honoured by electing him to the chair, we are certain he will repay the confidence reposed in him by reflecting honour upon it. We are also glad to note that the council have acquired, during the past year, several objects of more than ordinary interest. The Committee of Science, and those of Polite Literature and Antiquities, are fairly filled with members of undoubted abilities, and we trust, in future, that the majority of them will exercise their talents in the interests of their native land and for the honour of the academy.

### PROPOSED "SKETCH BOOK."

#### ARCHITECTURAL ASSOCIATION OF IRELAND.

We are glad to perceive that this young association propose starting a "Sketch Book" on a plan similar to that which has proved so successful a feature in the programme of the London association. With this view, as we learn from a circular before us, "members having sketches of ancient buildings in Ireland, England, or on the Continent, or of ancient furniture and jewellery, drawn in pen and ink, are requested to communicate with the hon. secs., and to state number of their sketches, as the committee, before taking any steps in the matter, wish to ascertain whether the project would be likely to receive sufficient support. The drawings will be photo-lithographed, and it is proposed to publish one volume each session. Any member contributing three sketches will be entitled to one copy, and six to two copies of the volume in which they appear." We trust that the proposal will be largely responded to.

### THE STUDY AND PRACTICE OF ARCHITECTURE.

On the 5th of last month Mr. Edward M. Barry, Professor of Architecture, commenced at the Royal Academy, London, his first official lecture on architecture. After paying just tribute to the abilities of his immediate predecessor, Sir Gilbert Scott, and also to Mr. Smirke, who preceded the latter, Mr. Barry continued his most excellent and instructive lecture, which, together with his subsequent one, can be commended not only to the careful study of the younger members of the profession, but to all who are engaged in the practice of architecture:—

From this brief reference to our two living professors, and also my recollections of their predecessor, the late Professor Cockerell, you may well imagine the feelings which press upon me this evening, and which nothing but a sense of duty could overcome. I have to take up the thread of their discourse to speak to you of the noble art of architecture, to consider its qualities, to trace its history, and to contribute, as far as may be, to its glory. Well might anyone, even under less disadvantageous circumstances, shrink from so heavy a responsibility, and fear to twine his inferior threads with the golden

strands left to him from the past. Deeply conscious of my own deficiencies, I must, I am aware, but too often need forbearance and indulgence in attempting to fulfil the task which lies before me. I cannot but feel that there are many who are far more competent to assume the position of an architectural teacher, and that the engrossing occupations of active professional life from early years are not the best preparation for a work, needing the learning and studious research which are best acquired in the quiet meditation of the closet.

Nothing, therefore, would have led me to address you from this place but a sense of the duty and obedience which each member of the Royal Academy is bound to manifest when he is called on by the authorities to place his services at their disposal for the furtherance of art.

It is in this spirit, gentlemen, that I shall address you, and I know I shall not ask in vain for your co-operation and attention. There may be present those who have the right to teach me rather than to learn from my teaching. To them I must appeal for their forbearance, and must ask them to consider that these lectures are mainly addressed to students, not of architecture only, and that it may therefore be necessary to dwell upon aspects or details of art, which to the more experienced are but the repetitions of a twice-told tale. It is not the first object of a professor in this place to impart the technical knowledge which can be best learned elsewhere; and I shall rejoice if, in dwelling on general principles, I am able in any way to excite an interest in architecture among the students of painting and sculpture, and so aid in paving the way for that union of the arts, the absence of which, in these days, we so often have occasion to deplore. If it were not for the thought that words uttered here may, perchance, fire the imagination of the younger generation, and inspire them with the resolution to emulate the deeds of the architectural giants of our glorious artistic history, I should feel no justification in occupying this chair, and to students alone do I presume to offer counsel and advice.

No one who is at all deeply imbued with a feeling of devotion to his art, and who has had to carry out his views, as best he could, in the rough friction of every-day life, with its many hindrances and discouragements, will undervalue the difficulties which beset those who would speak authoritatively about architecture.

An artist in such a case would know but too well how far his own works have fallen short of his cherished ideal to be inclined to adopt that spirit of fierce denunciation which so often passes now-a-days for a knowledge of art. He would naturally be the severest critic of his own achievements, and would know that to his criticisms a *tu quoque* retort might often be expected. Nevertheless, whatever the difficulties which beset him, the lecturer must remember that in art, as in religion, the message is everything, the messenger nothing; and that in matters appertaining to architecture more especially difficulties only exist in order to be conquered.

I can never forget my first experience of the Royal Academy lectures on architecture by Professor Cockerell. With him devotion to his art was a passion, chastened and regulated by the refinement of a scholar, and the thoroughness of a most conscientious artist. Urging, both by precept and example, the importance and exquisite beauty of Greek architecture, he was ever ready to hold out a helping hand to the wayfarer in other paths of art, for to him every artist was a brother.

Since those bygone days there have been many changes in public taste and practice; and it can do no harm to recall to memory a time when much was enforced which is now neglected, and to caution the art student, as Professor Cockerell was fond of doing, against mere "fashion" in architecture.

It might be instructive, and certainly would be interesting, to inquire into the various "fashions" which have prevailed since the days when this warning was first addressed by the Professor to the students of the Royal Academy in Trafalgar-square. Greek art and traditions were then more fully recognized by architects, in practice, than is now the case, and the Gothic revival was in its infancy. Professor Cockerell was led by his natural taste, and also by circumstances, to enter into the spirit of the architects of ancient Greece, with all the devotion of an enthusiastic nature, much as was the case with our late distinguished member, Mr. Gibson, with regard to sculpture.

The latter, as we have lately been reminded by Mr. Atkinson, would never tire of maintaining that the Greeks were always right; and his first object, when engaged in composition, was to discover how the Greeks would have dealt with a similar problem.

His architect brother-artist had arrived by study and research at a very similar conclusion. Although not slavishly adhering to precedents, his works are



so pervaded with the delicacy and finish of Grecian influences, that we can fancy him ever referring to these classic principles as the main test of excellence, and repeating, with Gibson, "The Greeks were always right."

He neglected no opportunity of urging, by precept and example, the study of Greek art; and I venture to think that such advice, although it may not for the moment be fashionable, was never more needed than at the present time.

Professor Cockerell had, moreover, an especial claim to attention, as having contributed, in no small degree, to bring a knowledge of his favourite architecture before his profession and the public. By his discoveries at Ægina and Bassæ, he added fresh materials for that appreciation of Grecian art which led thoughtful artists to consider what must have been the exquisite keenness of perception, mingled with a wondrous refinement in regard to the subtler effects of beauty, which animated those architects of old, who had so perfectly learned to work hand in hand with the sculptor, each being necessary to the other, and each contributing, to an extent never yet surpassed, to the perfection of the work before them. The enthusiasm which the Elgin and other marbles excited amongst lovers of art, led naturally to a strong admiration of everything which belonged to Greek architecture, and to a general attempt to introduce its forms and decorations into the buildings of the day. In this work Professor Cockerell had no small share; and though some of his teaching may seem to have been since engulfed in those whirlpools of fashion which he deplored, it is not easy to prove that our art has passed into a more healthy condition by the adoption of different principles, or by the imitation of different models. I must, therefore, impress upon architectural students the necessity of studying, with more care than is now too often given to them, the principles of Grecian architecture. This is, of course, a very different thing from advising a pedantic reproduction of forms, or an actual copying of examples, which no one would deprecate more strongly than myself. Too much of this has been done already, and no one can desire the repetition of a movement which encumbered our houses and public buildings with useless features, inconsistent with the wants of the nineteenth century and the exigencies of the English climate. But, while avoiding this snare, can it be useless to draw attention to the refinements which were habitual with the Greeks, although they can scarcely be discovered by our apparently rougher perceptions, without previous study and the practice of critical observation?

The entasis of columns may be referred to as one of the most prominent illustrations of my meaning. No one would now dream of designing a classical column without entasis, but this was not always the case; many modern columns have been made with straight sides, and the discovery of the refinement of the entasis was only made by careful study of the best examples.

Mr. Penrose has shown us how many similar delicacies of proportion exist in Grecian work to reward the student who has eyes to see and taste to appreciate the hidden beauties which lie beneath the surface.

Surely there are lessons here for the art-student of all times; and who can say that in these pushing, eager, restless days there is no room for the still small voice which teaches that breadth, simplicity, and refinement of proportion and ornament are the very essence of art: and that they may be seen displayed in the architecture of Greece as they have never been before or since.

While calling to mind my pleasant personal recollections of the days when Professor Cockerell enforced these principles from this chair with so much learning and earnestness, and a charm of manner peculiarly his own, these reflections have pressed upon me the conviction that whatever may be the dominant fashion of the day, an investigation of the principles of beauty in art can never be without advantage, and that in such an inquiry the triumphs of Greek architecture must ever hold a prominent place.

I can also the more gratefully dwell upon Professor Cockerell's teaching from a remembrance of the catholicity of his doctrine. Striving by study and careful examination to detect those principles of beauty which must ever be the same, however differently they may be illustrated or emphasised in various styles, Professor Cockerell gave no encouragement to an intolerant depreciation of forms of art which were not those to which he gave his special allegiance. No one could express more heartily and unreservedly his admiration of Mediæval architecture; and some of you may remember the learning and artistic sympathy which he brought to bear on the sculpture of Wells Cathedral and other Gothic masterpieces.

As regards this liberality and breadth of view, it

cannot be out of place to point out that if, with our historical knowledge, we are ever to have great artistic achievements in the future, the artist must rise superior to those prejudices which would seek to close whole volumes of past history, and would confine him to a narrow line of study, and still narrower sympathies.

It is now seventeen years since Mr. Cockerell retired from the professorship of architecture at the Royal Academy, a few years only before his death, in 1863, which left a gap in our profession that has never been exactly filled. It may well be said of him that his works live after him, and that he has left enduring claims on our respect and admiration in this place.

In entering upon the object of these lectures, it must, I fear, be admitted that the prospect before the architectural student has never been more beset with perplexity than at the present moment, when so many difficult problems are daily pressed upon us for solution.

What form is our art to assume? On what styles of past days is it to be based? or is it to be altogether new? In what way are modern scientific discoveries to be dealt with? Is an architect to be a sculptor and a painter also before he can be termed a true artist? These are only a few of the controversies which will readily occur to your minds as now calling for consideration, while, over and above them all, voices are loudly heard proclaiming that our whole system of architectural practice must be revolutionised, and that success will best be achieved by deposing the architect from his post of supremacy in favour of a commune of workmen.

Many signs of the times point to a disorganization of public taste, leading to an indifference to what is good or bad in architecture; and it daily becomes more necessary to find some resting-place on the true principles of art.

If we look around on the state of architecture generally among civilized nations, we must be struck by the fact that all over the world a period has occurred when its productions have ceased to display the higher artistic qualities formerly inherent in them, as if they had been suddenly paralysed by some fatal disease. In our own country we can trace the wonderful progress of Mediæval art, from the days of Harold to the time of the Edwards, and thence by a process of decline to its fall, in the Tudor reigns. We have since seen revivals, both of Classic and Mediæval types, and of these I must hereafter speak a little in detail. It is certainly difficult to assign the reason why, up to a particular time, it appears to have been natural for men to love and achieve beauty in their works; while, in these later days, ugliness would seem to be the common heritage.

We know that, formerly, every detail of architecture was replete with interest, as if by instinct, so that the very hinges of doors were works of decorative art. This moreover, was not done, as it might be done now, in exceptional cases, but it was the rule. The men who carried out these works were evidently penetrated with the spirit of their art; and it was as natural to them to work gracefully as it is to the modern workman to create useful ugliness. This difference of spirit dates chiefly from the discovery of printing, and the Reformation, which encouraged freedom of thought, and opened to the intellect of mankind paths till then closed or little frequented.

We cannot suppose that the sum total of human intelligence decreases as years roll on and the world grows older; but may it not be that we shall find the explanation of the apparent decline of the artistic faculties in the diversion of force occasioned by the devotion of the intellect to other lines of thought and achievement? In past times the want of facile means of communication kept the bodies of men rooted to the spot where they were born, and the absence of intellectual freedom closed to their minds those spheres of usefulness which are now open to all.

Abbeys and cloisters contained recluses, who, in separating themselves from the world, were glad to devote themselves to those artistic pursuits, such as architecture, painting, sculpture, music, illumination, embroidery, and the like, which would add to the splendour of the church and its services, and would be free from any suspicion of heretical free-thinking.

The pursuit of learning has had an opposite effect. It has prevented the intelligence of the world from being concentrated on any one subject, or group of subjects, and it has caused the great mass of the people to care more for philosophy and science than for art.

We are surrounded in this place by the buildings of learned societies, and there are many others scattered about London and the country, while the progress of science adds daily to their numbers. I was astonished to hear lately that for telegraphic

engineering, a profession almost of yesterday, there is now an institution numbering upwards of five hundred members.

Before this scientific activity became possible, we may assume that a large portion of the intellectual and constructive powers of mankind which are now given to it was likely to be devoted to some of the various branches of art, which was, in fact, the common language of the educated classes.

We may as well expect to turn back rivers to their sources as to reverse the great tide of modern thought; and all experience of its tendency shows that it flows in the direction of the division of labour. The stream of knowledge is now so great that no man can venture to think he has mastered it all; and even the greatest minds must be content to follow thoroughly some rivulet of truth, while accepting, on other points, the dicta of fellow-inquirers.

This being so, we cannot expect architecture to be any exception to the general law. It cannot command public interest if it ceases to be the expression of the wants and tastes of men.

Considering, moreover, the tendencies I have alluded to, can it be seriously imagined that the architecture of the future is to be committed to individual workmen, giving no guarantee of harmony, and owing no allegiance to the superior authority of the architect? The whole teaching of experience appears to be opposed to such a proposition, and to prove that the architect of the future should be not only a skilled artist, but also a man of scientific knowledge, and in harmony with the spirit of his time.

While it is true that we should gain by having our buildings expressions of the variety of interest, caused by the devotion of many minds to the details of the work, it is still essential that there should be a guiding spirit, and this must be that of the architect. The true reform of ordinary architectural practice would be to lessen the oppressive burden of petty business cares, which, under our present system, press daily upon him, and tend to deaden his devotion to pure art.

Every age of the world we live in has its own special characteristics, just as is the case with the human unit, and we misunderstand the teaching of history if we suppose that the outward signs of progress must always be alike, and must be the same in kind and degree as those to which men have been accustomed in the past. The architects of old worked, as we have no doubt, in perfect harmony with the spirit of their times, and we must expect to find that their mission and ours differ widely, according to the variation of circumstances and the characteristics of different ages.

In many respects it may perhaps be asked whether architects, in these utilitarian days, do not work under less favourable conditions than their brethren of old. It is difficult, for example, to approach the composition of a great work of art with a mind depressed by insistence on the "lore of nicely-calculated less or more." In private works, of course, financial consideration must always have ruled; but it is not easy to believe that the great public monuments of antiquity were constructed on this disheartening principle.

We can scarcely expect again to have great architectural triumphs, if the question about any important public work is, not—how shall we get a worthy building? but,—how little can it be made to cost? We cannot fancy the architects of Westminster Abbey, compelled to cheapen their design by reducing their mouldings, omitting the diapers and carvings, or leaving out the groined roofs in order to save expense. It would, of course, be easy to blame architects for failure under such circumstances; but would it be fair to do so?

I only put this question hypothetically, for, though we may conceive that such things might happen in Laputa, we must not suppose that they could occur in a country like ours, so rich and so prosperous that it is the treasure-house of the world—a country which provides, moreover, museums, picture-galleries, and a Government department of science and art for the cultivation of the public taste.

Great nations, however, sometimes do little things, and their very greatness makes them impervious to criticism. It has been said that no one but a banker could walk down Lombard-street in a bad hat; and, in a similar way, it is perhaps only rich communities that can afford to show with impunity a public indifference to art. At any rate, in our own case, artists may be allowed to hope that the spirit of utilitarianism, pure and simple, will never be allowed to be the sole guide of public policy in respect of architecture. It will not be creditable to us if history should record that, with pecuniary resources beyond those of any other time or country, we leave, as our contribution to architectural art, public works, showing, in their mutilated features, only too evident proofs of a parsimonious origin.



## CORRESPONDENCE.

## THE ARCHITECTURAL ASSOCIATION OF IRELAND.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I have read without surprise the article in your last issue under the above heading. There is no doubt that a feeling of indifference exists amongst the profession generally as to the fate which is likely to befall the association, if not better supported than at present. You throw all the blame on the association as a body, without for one moment considering that a good deal of the cause of the apathy prevailing might be brought home to the management. There is a committee, composed of the president, and ten others. No doubt the president, secretaries, and one or two others of this committee have exerted themselves for the common weal, and deserve no small amount of praise for doing so; as for the others, the least said the better. Some of them have not attended a single meeting of this session, and most of them but few. It is the usual thing when a committee meeting is summoned, that the quorum of three is wanting. I think this speaks for itself. I should propose that an analysis of the attendance of the committee should be printed, and sent round to the members prior to the election of officers for next session.—I am, sir, &c.,

A MEMBER OF THE A. A. I.

March 23rd, 1874.

## THE ROYAL DUBLIN SOCIETY LIBRARY.

TO THE EDITOR OF THE IRISH BUILDER.

MR. EDITOR,—I observe, in the IRISH BUILDER of the 15th inst. (p. 90), a complaint of the "deficiency and absence (*sic*) of really instructive works in the architectural and other arts" at the R. D. S. Library. Let me suggest to "Minerva," the complainant, that his best course towards remedying this defect is to enter in the "Proposal Book," provided for the purpose, the titles of such standard works as he considers should be provided.

It is manifest that, with the £600 or so annually available for the purchase of books, the Library Committee can but make a selection, and this being so, they should aim at providing such works as are not only the best in each department, but chiefly such as are beyond the means of ordinary readers. The works most frequently asked for as "really instructive," belong to a class of text-books which every professional student should provide for himself as part of his working tools, and therefore the committee must not be blamed for exercising discretion in limiting their selection, especially in the case of architectural books. The collection of works in the Department of Fine Arts is very good.

I am more concerned with an editorial notice to a correspondent, which implies that we have not in Dublin "a free library for the use of the working classes." There is, I know, a very general impression that the library in Leinster House is the private property of the members of the R. D. S., and that admission to read can only be obtained as a privilege through a member of the society. This is not now the case. The library is supported wholly by public funds—for I disregard £100 contributed by the society, as that is only about sufficient to cover the expenses of the lending department, the benefit of which is reserved to the members only. Admission to read may now be obtained in two ways: first, as formerly, through a member's introduction (and members are so numerous that there is rarely difficulty in obtaining this), and secondly, on application, addressed to the Library Committee, vouched by any respectable householder. This latter mode of admission was brought into operation within the last few years to obviate any difficulty there might be in obtaining members' introductions.

With the view, also, to the accommodation of the working classes, and those who could not

resort to the library in the daytime, it has of late been kept open continuously from 10 a.m. till 10 at night, the requisite funds being provided by special grant of Parliament.

I trust this explanation will satisfy any artisan who has the taste and inclination to become a reader, that he can do so without feeling under a compliment to anyone. The committee by which the library is managed give much valuable time and care to its superintendence, but the public have the use of it freely, and not as a privilege reserved for a select few. The only advantage the members have is the power of examining the books on the shelves, and of borrowing them after they have been a fixed time in the library.

What really is wanted in Dublin is a municipal Free Lending Library. The Act for establishing such—involving slight local taxation—has remained a dead letter so far as Dublin is concerned, and Parliament has refused to vote money for lending libraries.—Yours obediently,

March, 1874.

JOHN R. GARSTIN.

## A TRAMWAY SCAVENGE SERVICE FOR DUBLIN.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Several months ago it was announced that the Corporation of this city had succeeded in compelling the Tramway Company to introduce a clause or clauses into their bill, by which the tram line might be utilised at a subsequent date for the more economical and expeditious removal of the scavenging of the city to distant suburban "shoots." Shortly after a discussion took place, and a public indignation meeting of citizens was held, at which the disgraceful unsanitary condition of the city was strongly commented upon. Some leading members of the Municipal Council attended this meeting, and, if I remember aright, I believe that it was Mr. Norwood who acted as the spokesman of the Council, and defended the Corporation, explaining at the same time the arrangements that were being made for the better scavenging of the city. The public were told there and then that the arrangements for the tramway scavenging service would be soon complete, and that all that was desired would be soon accomplished.

Well, sir, months and months have passed over, and not a sentence has been uttered at any of the several Corporate meetings since respecting this tramway arrangement. Even Mr. French, who is credited with watching every move and break down, has uttered no word about this collapse. Was there ever any movement in the matter, or was it a mere pretence? Mr. Norwood is bound to explain. The scheme was an excellent one, and I have no doubt it would have worked well; and I am given to understand it is being tried with success in places in the sister kingdom. Suitable lorries or wagons are built, and depôts are provided in each parish, with sidings to the main tram line; and again in the suburban districts sidings are provided for the shunting of the lorries to the short lines leading to each "shoot." The small hours of the morning are utilised, before the town folk are out of bed; and any number of filled wagons can be thus expeditiously conveyed any distance out from the city.

The present system of cleansing the city of Dublin is not only imperfect, but the scavenging is not half done. Whole parishes nearly, not to speak of streets and lanes, are left for days untouched, and the service is something like a snail's pace. I have witnessed the scavenging service in Paris, London, Edinburgh, Glasgow, Aberdeen, Dundee, Liverpool, Leeds, Birmingham, and several other large towns and cities in the sister kingdom and on the Continent, and I must confess that Dublin, of all I have witnessed, is the worst scavenged city. It would not be too much to say that Dublin is the worst scavenged city in Europe. There are many small parishes in the sister kingdom and in the circuit of the metropolis of London that

cannot boast of one, not to speak of two, able engineers to attend to their sanitary engineering, which would put to shame this capital.

If any steps have already been taken in the matter of the tramway scavenging service, let an impetus at once be given to those steps, and let the Corporation finish the work they have begun, and which they are pledged to perform. The public health demands that a change should be made in the present unsatisfactory and dangerous system; and, for the credit of our citizens, and that a public scandal may be washed out, action in the matter of the scavenging of Dublin should be taken without any further delay.—I am, your's, &c.,

C. H. CLINTON.

Rathmines, March 30, 1874.

## "THE PUMP FITTER'S GUIDE."

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Some time ago a book called the "Pump Fitter's Guide" was advertised in your columns. Might I take the liberty of asking if you or any of your readers remember the name of the author or publisher. I wish to procure the book, and have made enquiries from several booksellers, but they cannot find it in any published book-list.

ROBERT COCHRANE.

Banbridge, March 26th, 1874.

## THE PREVENTION OF RAILWAY ACCIDENTS.

At a meeting of the Institution of Civil Engineers, Ireland, held in the Museum Buildings, Trinity College,

The President, Mr. P. C. COTTON, C.E., in the chair,

Mr. J. Chaloner Smith, Engineer of the Dublin Wicklow, and Wexford Railway, read a paper on "The Prevention of Railway Accidents." He referred to the various causes of railway accidents, and observed that those attributable to the misconduct of drivers were very few indeed, only seven having been reported. A great deal of confusion was sometimes occasioned by discrepancies between signals and points, and not a few accidents were attributable to the shifting of points while the train was in actual progress over them. He considered the existing system of distant and home signals objectionable, and believed it could be changed with perfect safety. He strongly advocated the general introduction of the "interlocking system," by which the points were set, and the signals made to act simultaneously. The rather notorious Westland-row Station, whatever its other defects might be, was favourably circumstanced in this respect. Anderson's interlocking apparatus was in use at the terminus, the consequence of which was, that if the drivers simply obeyed the signal, which told them a certain part of the line at the terminus was opened or closed, a collision could never occur, although the exigencies of the traffic might frequently require a train to move from the up to the down line and *vice versa*. By simply locking all the signals as for danger, the intermediate points might all be opened for shunting purposes. Mr. Smith complained of the awkwardness arising from difference between the views of different inspectors of the Board of Trade. In one instance, on a single line he had the interlocking system in force with the approval of an inspector, and afterwards on the arrival of another inspector he was obliged to erect a distant signal and a home signal. The interlocking apparatus at Westland-row saved expense in pointsmen and signalmen, and at the end of three years repaid its cost. In addition to the interlocking apparatus, Captain Tyler recommended the use of locking-bars to keep the points in position while trains were passing. An increased use of the telegraph to keep distances between trains was also very desirable; and, above all, it was necessary to make drivers respect the danger signals as they do buffers. Mr.



Smith referred to the staff system, which no engine was allowed to run on a certain portion of the line without carrying a staff used for that portion, and no other, and to the block system, which divides a line into sections, so that when a train was started from A, a telegram is sent by A to B, stating that the section A to B is blocked; and until A receives a telegram in return from B, stating that the train has passed that point, A will not let any other train follow. Both those systems were theoretically perfect. Mistakes in carrying them out might, of course, occur, but lines worked on those systems were infinitely safer than lines worked without them. The staff was only adopted for single lines, but single lines constituted three-fourths of the railways of Ireland. On single lines it was sometimes necessary to despatch two or more trains in one direction before a train arrived in the opposite direction. In that case the first train would be provided with a ticket, the staff remaining behind. But the system then became theoretically imperfect, because, although there was no danger from a train in the opposite direction, there was nothing to prevent a train from being run into by another which followed it. To obviate this danger he proposed to print on the ticket an indication that the particular section of the line which the preceding train was traversing was blocked, so that no train should be allowed to follow until a telegraphic signal should have been received, stating that the preceding train had passed the section. This telegraphic signal might be given by an unskilled telegraphist. The adoption of the block system for double lines was strongly recommended by Captain Tyler, who was of opinion that the argument that with such increased security drivers would become careless, was fallacious. In Captain Tyler's belief, on the contrary, drivers constantly accustomed to risks were not likely to be sufficiently cautious; but he thought the enforcement of stricter discipline was very necessary. The question of the employment of brakes, to be worked by drivers in addition to those worked by the guards, was also important. In conclusion, Mr. Smith observed, that much of the practical improvements in reference to railways had been devised by railway officers; and perhaps one of the reasons why such improvements were of slow growth was, that the time of their officers was almost completely taken up with the details of their work.

Mr. Bailey, C.E., of the firm of Courtney and Stephens, exhibited and explained two models of locking apparatus, one of which had been patented and sent to him from London, for approval, and to carry out; the other he had invented himself. According to the former, the joints were regulated by depression on elevation of a rail, but he disapproved of this as affording no security against depression or elevation by mistake, while a train was actually passing the point. According to his plan, which was an improvement on that of Saxby and Farmer, not only was this evil guarded against, but also the possibility of the gradual opening of the points, which had been the source of a considerable number of accidents.

#### GAS.

The half-yearly meeting of the Alliance and Dublin Consumers' Gas Company was held yesterday. The report shows a loss on the half-year's operations of £9,464 12s. 1d. The directors are (they say) endeavouring to improve their carbonising, and reduce the leakage to a minimum.

A meeting of citizens and ratepayers will be held this afternoon in the Molesworth Hall, to petition against the two Gas bills now before Parliament.

At a meeting of Committee No. 1 of the Corporation on Saturday, Inspector Connolly submitted his report-book, showing the average illuminating power of the gas supplied to the city in standard candles, as the result of five daily tests made by him during the week ended the 27th ult., making the following average, viz.:—21st March, 19.78 standard candles; 22nd March, 18.64 do.; 23rd March,

21.35 do.; 24th March, 21.82 do.; 25th March, 20.48 do.; 26th March, 19.85 do.; 27th March, 20.36 do. Average for week—20.32 standard candles.

A special meeting of the Town Council has been called for Saturday next, to consider the present position of the proposed Gas Bills, and which will be before the committee on or about the 17th inst.

#### ARCHITECTURAL ASSOCIATION OF IRELAND.

This association held a general meeting on Thursday evening last, W. M. Mitchell, V.P., in the chair. The paper announced for reading—"On Specifications"—by Mr. W. G. Doolin, L.C.E., was postponed in consequence of his inability to attend. The subject was, however, fully discussed by the members. It has been announced that the association will visit (by the kind permission of B. B. Stoney, Esq., C.E.) the works at North Wall Extension, now being carried on by him for the Port and Docks Board, on Saturday, 11th inst., at three o'clock.

#### SANITARY AND OTHER NOTES.

"CLEAN DUBLIN."—The following is given as a part of a report on the state of the city:—"The streets, lanes, and other public thoroughfares were regularly scavenged for the week ending 21st inst."!! Can it be true?

David Byrne, Ball's Bridge, was summoned by Inspector M'Evoy, of the Pembroke Township, for disobedience to a magistrate's order in reference to a nuisance existing on the defendant's property. Fined 10s. Charles Geoghegan, Lower Dorset-street, was fined 10s. for a similar offence.

Eliza Lowry was ordered to be imprisoned for seven days for disobedience to magistrates' orders, in reference to sanitary complaints.

Winifred Kelly, of Haddington-road, was summoned by M'Evoy, Sanitary Inspector of the Pembroke Township, for having exposed for sale a plaice unfit for human food. Dr. Cameron deposed that the fish was unsound. Seven days' imprisonment.

There were 21 sanitary cases before the court; orders were made in all.

At the Castlereagh Petty Sessions, two milk contractors were convicted, and fined, one in £32 15s., and the other in £16 7s. 6d., for supplying the workhouse with milk varying in adulteration with water from 33 to 100 per cent.

#### HOME AND FOREIGN NOTES.

The quarterly meeting of the Royal Historical and Archaeological Association of Ireland will be held this day at Butler House, Kilkenny.

A new Protestant Hall is to be built in Cavan, at a cost of £1,500. The site has been granted by Lord Farnham. We understand there will be a limited competition for designs.

The Corporation of Drogheda have accepted the tender of Mr. Peter M'Quillan, to light, with best petroleum, 30 lamps within the borough, for 5 months from 31st March, at £1 5s. per lamp.

Some alterations and improvements have lately been made in the frontage of Mr. Richard Allen's well-known establishment in Sackville-street. Plate-glass and Newry and Peterhead polished granites have been utilized without with some effect; and the walls and floors immediately within are covered with encaustic tiles. The tiles are the manufacture of Messrs. Maw and Co., and were supplied by Messrs. Sibthorpe, Cork-hill. The building contractors were Messrs. J. and W. Beckett, South King-street.

HEALTH AND EDUCATION.—The Premier, through one of his lieutenants, has, says the *Freeman*, declared that he will devote this session to sanitary and educational reforms. A sound body and a sound mind is to be his motto, and there are, we apprehend, few who will not applaud the intention, and aid in carrying out the idea. The mental culture of the people who constitute the nation and the preservation of the public health, are objects worthy the attention of a statesman, and deserving of the support of Parliament. Ireland stands in need of educational and of sanitary reform as much as any portion of the empire, and we hope

we will not find the Premier breaking to the sense the promise made to the car, so far as Ireland is concerned.

THE FIRST COAL FROM THE LOWER BED OF THE WHITE BIRK COLLIERY.—In the early part of the year 1872, a number of the members of the Darwen Industrial Co-operative Society formed themselves into a Mining Company, to be styled, "The Darwen Mining Company (Limited)." The site selected to commence operations was White Birk, near Blackburn. Eli Walsh, Esq., of Darwen, had previously bored through the various strata, and ascertained that there were two seams or beds of coal, the higher and lower, the latter being 31 inches thick. On Mr. Walsh closing the Heyfold Colliery, he declined to continue in business, and in a liberal manner gave every information to Mr. William Taylor, manager for the Darwen Mining Company. The first sod, on commencing to sink the shaft, was cut on the 29th of April, 1872, by Mr. Howarth Lord. The work was commenced and continued with enterprise and zeal, for which the directors deserve the best thanks of all the shareholders. Though many obstacles have been presented, they have resolutely been overcome. The long-wished-for time of coming to the lower mine has arrived this week. On Wednesday, instructions were given that the first piece of coal brought up the shaft from the lower mine should be brought to Darwen and presented to Eli Walsh, Esq., of Bankside-terrace. Between four and five o'clock on the above-named day, a horse and cart belonging to the Industrial Co-operative Society passed through the principal streets of Darwen with a cob coal, weighing 26 cwt., which was duly presented to Mr. Walsh.

#### TO CORRESPONDENTS.

"UNKNOWN DUBLIN."—The writer of these sketches is aware that in Mulvaney's "Life of Gandon," and in other directions, the death of the architect has been described as having taken place at Lucan, where the architect removed after leaving Mecklenburgh-street. On the authority of a very old and respectable resident near the latter locality, the writer of the sketches is assured that James Gandon positively removed shortly before his death back from Lucan to Gloucester-street, where he died, as stated.

A STAIRCASE HAND.—The works of Paine, Price, Langley, Nicholson, or their subsequent editions, although useful volumes, yet in the matter of handrailing are entirely superseded by more ready and correct methods. One of the best works of the kind—indeed, we think it is the very best—is that of Robert Riddle. The late editions of his work on Handrailing and Stair Building, as also his "Practical Carpenter and Joiner," illustrated by the aid of cardboard models, are admirable works, and ought to be in the hands of every workman that desires to be a good staircase hand.

A CARPENTER.—In framing for window trimmings in respect to the case where the soffit is an elevated one, the lines of the elbow could not be made to answer the line of the soffit. Where it is made to answer so, the line of the architrave must be dragged out of perpendicular, and the line of shutter follow suit. This faulty work occurs through a most blameable ignorance of the correct method of setting out the work, or, as they say in the trade, "laying down the lines."

A CITIZEN.—The matter is noticed in present issue.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & CO., Homoeopathic Chemists, London."

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#### NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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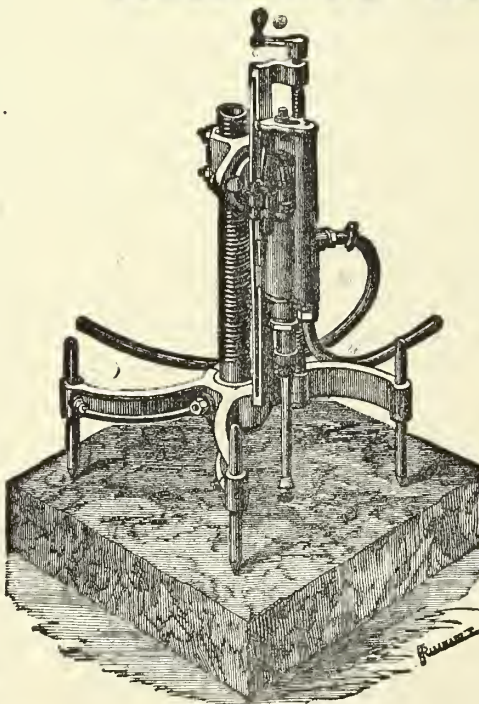
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Circulars sent free.

One of McKean's Rock Drills may be seen working in Aberdeen granite from 1 to 4 o'clock daily at 42 Borough-road, London, S.E.

THE McKEAN ROCK DRILL.—Although, perhaps, less prominence has been given to the McKean drill than to some others in the various articles and letters which have from time to time appeared in the *Mining Journal*, the introduction of the machine has been steadily going on, and the results obtained with it have been in every case satisfactory. The machine is in general use, amongst other places, at the St. Gothard Tunnel, and St. John del Rey Mines, and from the acknowledged practical ability of the gentlemen who have control of the working operations at these places, the mere adoption of a machine by them is a very strong evidence in its favour. With regard to the St. John del Rey Mines, in particular, it may fairly be said that the managing director—Mr. John Hockin—has for years past displayed the utmost discrimination in the selection of the best machinery and materials obtainable in the market; hence, perhaps, the success which has attended his efforts to reinstate the company in its former prosperous position. Mr. Hockin was amongst the first to appreciate the value of dynamite as a substitute for blasting-powder in mines, and the economy he has effected by its use has been enormous; the result of using the McKean drill is equally satisfactory. The reason for his choice will readily be understood when the claims put forward for the McKean drill are considered. As compared with all the drills at present in the market, its advantages over them are that it is the simplest in construction, and contains the fewest parts; that no duplicate parts whatever require to be furnished with the machine, that it is more durable on account of its superior mechanical construction, that it is the most powerful, and runs at greater speed than any other, without liability to derangement or breakage, and that it possesses greater facility of manipulation in its adaptation to various kinds of work. The work done with the machine certainly goes far to establish these claims, and to remove any doubt that may exist Messrs. McKean & Co. announce that they are quite prepared to submit to any competitive tests to determine the facts. This is only repeating the challenge made more than 12 months since in the *Mining Journal*, and as Messrs. McKean & Co. expressed their willingness to agree to any reasonable conditions, it is to be regretted that a competition promising to prove so extremely valuable to miners should never have taken place. The renewal of the offer at this time, when increasing interest seems to be taken in the matter, is particularly opportune, and its non-acceptance by rival manufacturers could only be regarded as a tacit admission on their part of the superiority of the McKean Drill.—*Mining Journal*, Nov. 22, 1873.



# The Irish Builder.

VOL. XVI.—No. 344.

*The Conflict of Capital and Labour.*



HERE are ominous signs, accompanied with heavings of strange unrest, in the world of Capital and Labour, not only within the circuit of the British

Islands, but on the American Continent and at the Antipodes. No matter in what direction we look, we find a strong reciprocity of sentiment between the workers as against their employers, the capitalists. There is something still either radically wrong in the existing relations between Capital and Labour, or a premature revolt, which will be short-lived, as it may be disastrous, is taking place. We do not say that such is the fact, but the subject is worthy of the serious consideration not only of the body politic, but of the Legislature of the country.

The latest, and perhaps the most marked phase of the labour revolt is that of the agricultural classes. We have ever acknowledged that the labourers of the field have never been properly remunerated, and that their condition as a whole has been from time immemorial a wretched one. Badly fed and badly housed, and, as a rule, left to help themselves as best they might, it was not to be supposed that when the blessings of a little education reached them and made them think over their lot, they would not strive to better their condition. Although political and religious feeling is mixed up to some extent in the agricultural labourers' movement in England, yet their cause is worthy of universal support and sympathy, as long as it is confined within its legitimate limits.

The agricultural labourers, as well as the operatives, are quite justified in selling their labour in the highest market, and in combining for their own social and educational advancement. Farmers in some instances are paying as much as they can honestly afford at present in some districts, but there is no doubt there are large numbers of them who farm upon a large scale who could and ought to raise the wages of their labourers.

In some of the south and south-western counties of England, particularly Dorset and Somerset, the condition of the agricultural labourers has been for long years as bad as it has ever been in this country. We have a personal knowledge of their condition, for we have visited them in their homes, conversed with them in the fields, and examined their history and surroundings. Matters, however, have begun to change in favour of the poor hinds of Somerset and Dorset, and where we found their wages at eight or nine shillings a-week four years ago and less, we find now that they are paid from twelve to fifteen shillings per week, and in some cases more, certain allowances being considered.

Here with us in the pet county of Dublin, we have known farm labourers for long years paid no more than nine shillings per week, and even ploughmen and carters received no more than ten shillings. It was often a marvel to us how men continued to work and live and rear families upon such miserable stipends. Of course their wives in some

instances helped to increase the weekly income by doing a little work in the spring and summer months; and the children, when they reached the age of nine or ten, and often at a younger age, were sent out into the fields to pluck weeds or frighten the birds. Women, however, should not be allowed to work in the fields if indoor labour could be found for them; and, instead of being packed off to the fields, the boys and girls should be packed off to school, and kept to their lessons until they were at least thirteen years of age.

The worst features at present connected with the agricultural conflict in England are the efforts made to lead to the wholesale emigration of the able-bodied to America, Australia, and other far more doubtful fields of labour. Few organized schemes of emigration have ever turned out well. Where emigrants have gone of their own free will, better luck has followed. We are adverse to any system by which this country would be deprived of the best of her peasant population, unless indeed the condition of the agricultural labourer of the country appeared hopeless. We do not despair of seeing a great change in a few years worked in favour of the agricultural population of Ireland; but the mixing up of their cause with party politics will only retard the desired end.

Having said so much respecting the agricultural workers, we may devote some remarks to the other workers in the world of labour—the operative classes. This year will, we fear, witness a repetition on a large scale of those dangerous expedients, "strikes" and "lock-outs," by which masters and men are wont for many years to measure their strength. Nothing can be more injurious to the industries of the British Islands than these continually-recurring conflicts. They not only cut at the root of all friendly relations between workmen and employers, by creating distrust and ill-feeling, but they are yearly opening the British market to severe and dangerous competitions, by which foreign firms take advantage of our disputes, and carry off the prize that should be secured by home manufacturers for the employment of home labour. We do not deny the right of foreign capitalists competing with British ones, for we enter foreign markets in competition with them; but we cannot too strongly condemn our labour disputes, which, if continued, must render us more and more unable to successfully compete with those outside our shores, and which must eventually lead to the crippling of our industries. If our skilled workmen are dissatisfied with the present system of labour, they are at liberty to try how far the co-operative system will improve their position. Under such a system they will be joint masters as well as workmen, and they will have an opportunity of weighing the responsibility that attaches, and of having their share-and-share alike with the rest of their co-partners. At present they must rest satisfied that they can by no possibility be masters and workmen at the same time, and expect a large share of the profits in addition to their weekly wage.

Of course it is possible to adopt a system of giving a certain percentage of profit to workmen engaged in converting raw material into a valuable marketable commodity in which a great expenditure of money and skill takes place. Workmen in general, however, seem to prefer a system of labour in which there is little or no responsibility on their side,

and they are prone to exact a rate of remuneration oftentimes wholly out of proportion with the degree of skill they bring to bear in the manufactures involved or the branch of industry in which they are employed. The public are in reality the employers, and the capitalists the agents between the workmen and the former. If wages are forced considerably over the normal standard by unjust demands, industries must naturally slacken; the demand, in fact, for any articles which can be dispensed with, and are not an immediate necessity, will grow less. If, in the case of the building trade, wages are forced up by injudicious combination, there is certain to be a revenge somewhere, and that sooner than may be expected. The trader will hesitate to improve, intended works will be postponed, a few may find constant work at the higher figure, but a larger portion of the workmen will suffer much through idleness; and, if they get employment, it will be only of a temporary instead of a permanent character.

No amount of strikes or lock-outs will permanently effect a benefit for employers or workmen. Kindly relations between both must be established and maintained, and demands and differences referred to an arbitration. If a kindly conference or arbitration fails, then so much the worse for the interests of both. The aid of the law can only be justly enlisted to put down criminal acts; and, though strikes and lock-outs at present are not criminal in the eye of the law, it is no less than criminal folly and madness for both parties to resort to them.

## "ABOUT SWIFT AND HANDEL."

AN article in our last issue under the above heading has elicited from Sir Robert Stewart a reply, which we willingly and cheerfully publish. We had no intention to provoke a discussion, neither did we wish to single out from the musical profession of the past or present day any particular person or persons for attack. We read Professor Stewart's lectures on Handel, as we read his previous ones on kindred subjects, with particular pleasure; but we considered that in his late lectures he bore emphatically hard upon the name and fame, public faults and private frailties, of our countryman Swift. It was natural that we should take up the literary cudgel and deal a blow in his favour. We regret that Professor Stewart, in dealing with his subject, both in his lecture and in his letter, has travelled more than a little out of his way, as it may, and as it has tempted us already to take cognisance of matters that were better untouched.

On the threshold of our remarks, let it be plainly understood that when we alluded to certain professors and musicians who visited, and resided in, this city, we did not mean that our observations should apply solely to the few native and resident musicians who practised and struggled hard for a livelihood in this country; but we meant our remarks should apply to a large body of practitioners connected with the musical world who from time to time visited and temporarily resided in this country, and whose honours and successes appertained to England and to the Continent as well. In a word, we meant to include the speculative musicians, the practical theorists, and the performers, vocal and instrumental, of both sexes. Taking this large class, and writing them down as the



representatives of the musical world, we again assert that their benevolence as a whole has been small, and that musicians in general have been no better than they should, and in a great many instances not half as charitable as they ought to be.

But to the main question: the relative worth of the labours of Swift and Handel. Sir Robert Stewart designates Swift's labours in behalf of Ireland as a "sort of contemptuous patriotism." There is no doubt that the Dean of St. Patrick's had good reason for thinking that a large body of his countrymen whom he helped to serve, first by creating a public spirit among them, were a "wretched people," but not wretched in the sense of being vile. Prohibitory laws had crippled their trades and manufactures; and there were other political causes that led to a state of government in Ireland of a most reprehensible kind, but we are precluded from entering upon that part of the question in this journal. Swift had a good cause for showing a sourness of temper betimes, and as to being a disappointed man, it may or may not be true; and, if true, it proves nothing uncommon. Many of our great public men have been disappointed in their wishes, and had obstacles thrown in their way. Handel himself was a sorely disappointed man at more than one period of his career. His attempts to revive the Opera in England, and his entire failure, sorely distressed him, and gave rise, we believe, to some bitter remarks. It turned out well for his fame that he cut short his dramatic career and took to the writing of his great oratorios. This country received him most favourably indeed after his failure in England, and he would have been the most cold phlegmatic German that ever breathed the breath of life did he not express a kindly feeling for our people, and endeavour to add to his sympathy some practical embodiment. Sir Robert Stewart quotes the profits arising from the performances of the "Messiah" extending over a series of years, but this is arguing from a secondary to a primal cause. These sums are not individual contributions, and it is beside the question to say the "Messiah" alone has fed more hungry, healed more sick, and clothed more naked than all the wits and satirists of Europe combined." The fact of a public performance being devoted for the benefit of any charitable institution, is wholly irrespective to the question of Handel's bygone private or public charity during his life. Many other works written by other men have been utilised by public performances in the aid of the poor or of charitable institutions. Without depreciating Handel's share in the original performances, we regret at the same time that some other charitable institution in the city had not received the profits instead of the Foundling Hospital. Viewed in the light of the present day, all classes of our co-religionists are, we believe, now inclined to look back upon the Foundling Hospital as a most objectionable form of charitable institution.

We have no way of ascertaining exactly the amount of Swift's private benevolence, but there is reason to believe it was not small. Moreover, as far as we can find, it took a practical direction. During his connection with St. Patrick's Cathedral, it is related of him that he was always assisting struggling tradesmen and mechanics to better their condition. His acts of benevolence to those in the weaving trade we have read of, years ago, in different channels. He established loan funds, himself being the lender, and he charged no interest, insisting only on punctual re-payment. He thus assisted hundreds of struggling tradesmen to tide over their difficulties, or to become small manufacturers. Again, the amount of Swift's bequest towards the foundation of St. Patrick's Hospital amounted to upwards of £10,000—in fact, the whole of his available property, subject only to a few minor legacies, was given for one of the most Christian, charitable, and laudable purposes that could be conceived. If this grand donation involved a "satiric touch," would to God we had, in the interests

of Ireland and suffering humanity, a few more of such touches. It is touches like this that go far to make the whole world to feel akin. Swift most likely had a presentiment of his own sad mental decay; and, knowing the deplorable condition of those who are deprived of their reason, led him, while his own mind was unattacked, to found an institution for the reception of the greatest objects of Christian pity. The greater honour is, therefore, due to him.

A parallel must not be drawn between "the greatest of musicians against the smallest of poets." We are free to admit that the Dean of St. Patrick's was more of a rhymist than of a poet; but though his poetical faculties were not of a high order, he possessed a wonderfully creative mind, and his more popular and readable works shew this. Apart from the objectionable passages in "Gulliver's Travels," it contains the scheme or the prime objects of good government. The book, with all its faults, points many a good moral, and it is not undeserving the notice of our statesmen of the present day. We have already acknowledged the coarseness of many of Swift's writings, and we will not, nor cannot, defend them; but we were quite justified in asking the readers of the present day to judge them by the spirit of the age in which they were written.

Does Sir Robert Stewart remember the opinion of Sir Walter Scott on Swift's public worth and character, as also his poetry? Scott was no inferior judge of literary merit; and, though he does not rank our countryman as a great poet, yet he acknowledges his unequalled powers of versification, the best grammatical arrangement, and the most simple and forcible expression, as if he had been writing prose instead of moulding his thoughts in a rhythmical channel.

We could mention the names of several great writers of the past whose works are still prized and appreciated, apart from most objectionable passages. There are several popular nineteenth-century writers who are not in a position to throw stones at their eighteenth-century brethren on the score of morality. In the twentieth century, too, critics will arise more merciless than now, who, knowing less of present evil influences, will not spare the dead, though upwards of a century may have passed since they walked the world.

In the latter portion of his interesting letter, Sir Robert Stewart has, we fear, been oversensitive, and his remarks betray a personal colouring. We have not charged, did not, nor do we charge the Dublin musicians with being greedy of gain and selfish; nor do we in any part of our article throw out an innuendo that could be construed into any unfriendly motive. The few Irish composers and musicians of note, vocal and instrumental, who were content to take their chance with their countrymen and resided mostly in this city during the first thirty or forty years of the present century, experienced "hard lines" indeed. Their greatest successes were small, when compared with the birds of passage who visited us for a season and repeated their visits at intervals. The people of this country have indeed, both in the last century and the present, from the days of Dr. Arne and Handel's visit down to our own days, shown undue preference for everything foreign in the way of musical and dramatic representation. If the tastes of the middle and lower classes had not to so great a degree controlled the desires of the nobility and gentry, our native exponents in music and dramatic art would have received small hearing. The history of the Irish Stage throughout the eighteenth century will furnish many items and incidents worthy of particular notice; of the visits of Italian composers and musicians—of their failures, and successes, and ambitions. The history of the Italian opera, and the professional career of German and Italian musicians, aye, and English ones too, in Great Britain, for the last forty years, furnishes some sad chapters of musical history. We do not care to rend the partial veil that covers fierce

rivalries, inordinate greeds, selfish interests, cold-heartedness, mean expedients, broken contracts, squabbles between managers and musicians, libels and litigations, and a thousand and one other matters that do not go to prove that the representatives of music, vocal or instrumental, were burthened with much Christian feeling, or were disposed to respond to the call of Charity in general, or sympathy with their professional brethren in particular.

We contend that Swift was equal if not superior to Handel in Christian charity, and superior to the latter in public worth. Swift was a great thinker; consequently, he was a creator as well as Handel. From the days of the great musician down to those of our own Balfo, musical composers have been the greatest of plagiarists—Bach, Haydn, and Beethoven being said to be remarkable exceptions. They have never ceased to appropriate largely from one another, yet they are termed "noble thieves," and Handel the noblest of them all. If popular literary writers of the present day were caught in the act of pirating one another's productions, they would meet with swift and sharp exposure; yet Handel and his brethren are excused on the plea that they originated as many good things as they appropriated.

If we have used any severe expressions, we think a reference to the several "Musical Memoirs and Recollections" written by well-known writers in the present century, will justify us. As to the honours and emoluments heaped upon musicians in general, many particulars will be found in the history of the Irish as well as the British stage, and in the works of Edwards, Hogarth, Parke, Phillips, and Chorley. Indeed the latter candid writer throws a veil over the imperfections of composers, foreign and British, and relinquishes the ungrateful task for other pens to take up. He, however, furnishes a few traits of composers and musicians—the much-extolled Spohr among the number—which are worthy of particular notice. *En passant* we might point to the name of the Irish Balfe as one who received a very fair reception and remuneration for some of his works; and, had he not thrown his fine chances away, extending over a number of years, he might have amassed a very large fortune indeed. He has had some tributes to his talent on more occasions than one voted to him by the British public.

We must stop here for to-day. There are one or two more matters in Sir Robert Stewart's letter that require a fuller answer. With the little time we have upon hand to devote to the subjects at issue, apart from the professional interests represented by this journal, we have been unable to hunt up references that would be useful. Written *currente calamo*, our answer in defence of Swift must only be taken as an instalment of the vindication that is due to his memory.

Our love for music and our respect for many of its professors and exponents will not prevent us from speaking truths in connection with the profession, that should be known. Music, though it elevates and soothes, has not always or generally in the persons of its representatives had such an influence in the moulding of their characters as to make them supreme mortals. Music worshippers have often worshipped another idol, and though many of them have found it and hugged it, they lived lives of strange unrest.

We will return to the subject, perhaps in our next issue.

#### SANITARY AND OTHER NOTES.

This year has not as yet been signalled by any sanitary efforts calling for particular notice on the part of the Corporate authorities. There certainly have been some sanitary prosecutions for minor nuisances, which were very proper; and we would like to see them followed up in the matter of public obstructions and adulterations. The Main Drainage works are still in a state of collapse, and are not unlikely to remain so. In the



case of *Alma v. the Corporation*, in which the latter body was sued for £302 5s. 7d. as county cess in respect to the Waterworks at Stillorgan, judgment was given against the defendants.

**BRAY.**—At a meeting of the commissioners of this town, a final letter was read from the Loan Commissioners in London, stating that it appeared this board had at present exceeded its borrowing powers to the fullest extent. Some conversation then occurred as to the advisability of applying, under the Local Government act, for a loan for sewerage purposes. The matter was referred to a committee for a report to be drawn out and brought before the full board, the clerk and surveyor to make all necessary inquiry on the subject. Relative to a request to remit fines imposed in Bray Township Court on certain traders who had exhibited their wares on the footways, an answer was ordered to be made negating the request for the present. A motion was made to rescind a resolution ordering that some changes be made in the position of one of the gates leading to the Bray Esplanade. Some discussion ensued on the unbusiness-like nature of doing and undoing the business of the board.

**ARMAGH.**—At a meeting of the commissioners of the town, the question of a defective sewer in a gateway belonging to Mr. Ferris, of Market-street, gave rise to a protracted discussion. It was finally resolved that—if it was proved that the sewer was a public one—the commissioners would do what was necessary to put it in a proper state. Public or private property, the commissioners are called upon to see that the sewers of the town are in a proper sanitary condition, and do not exist to the injury of the health of the town.

**DROGHEDA.**—The proposed sewerage for this town, in consequence of the contemplated sinking of the existing sewers so as to drain the basement storeys of houses in certain parts of the town, has given rise to much one-sided discussion. Mr. Joseph Harris writes to the local paper that “a work of such magnitude as is contemplated would entail such an expenditure—I say not less than £18,000 or £20,000 sterling, the interest of which alone would amount to £1,100 or £1,200, thereby necessitating a *fixed borough rate* of fully 1s. 6d. in the pound per annum, which would have to be levied off the already over-taxed ratepayers of the town, as I think the corporate estate is unable to bear that burden.” The subject of the sewerage of Drogheda deserves serious attention. If it can be economically done, so much the better; but the public health requires that it should be well and expeditiously done. If the corporation do their duty wisely and carefully, the work need not be a very expensive one. We see by the result of the late audit that the corporate receipts for the year ending 31st August, 1873, were £3,575 6s. 5½d., and the expenditure £3,451 17s. 9½d. Looking over the items, we see that the sum for “law costs” was only £25, and the “municipal election expenses” £7 8s. 6d.

#### HOW THE MONEY GOES.

WE hope the ratepayers' eyes are beginning to be opened, at last, as to how the public money is being, and has been wasted.

If the Government Auditor were empowered to go over the city accounts for the past five years, it would not be £3,000 but probably upwards of £15,000 would be surcharged.

It is monstrous to think of how long this barefaced public plundering has gone on in the Corporation of Dublin.

On Saturday last, we had an edifying meeting in the City Hall. The truth is beginning to leak out, despite the efforts of the family circle. No less than four gas engineers had been employed at a cost of £1,300. Mr. Clemenshaw sends in his little bill for £513 8s.; Mr. Pritchard furnishes one for £391; Mr. Stevenson claims £228 17s.; and Mr. Church would feel obliged at the payment of £242 3s. 3d. It was as clear as daylight that the object of the Corporation in pro-

moting the now Gas Bill was to save the members of the Council from being compelled to pay the above sums. So a flagrant attempt is made to shift the costs on the shoulders of the ratepayers. Councillor Byrno endeavoured to act as the pilot, but there are too many “breakers ahead.” The citizens are beginning to know every card in the pack, and we fear that Councillor Norwood and some other councillors and law advisers will stand a bad chance of getting fat fees for their nominal labour in future.

The “beginning of the end” has at last commenced, and the pending collapse cannot be much longer averted.

#### ADULTERATION STATISTICS.

FROM the City Analyst's Report for 1873 we learn that during the year 1873 he made 386 analyses of food and drink, of which 108 were adulterated, 16 pure, but of bad quality, and 262 pure. Of the adulterated specimens, the milk was adulterated with from 12 to 120 per cent. of water, but with no other adulterant. The bread was adulterated with alum, and in some instances it contained a large quantity of sandy matter. The flour was adulterated with alum, and six of the samples contained grit or sandy matter. The tea was composed of exhausted and decayed leaves, strengthened by the addition of some stringent gums. The coffee was adulterated with chicory and burnt sugar. The rum was wholly spurious, being new whiskey sweetened with treacle, and being 25 per cent. under proof. The butter examined contained no foreign matter, but four samples were rancid, and unfit for use. The oatmeal was very mouldy, full of fungoid growths, and unfit for use.

Twenty-three waters used in Dublin were examined, and of these sixteen proved to be loaded with dangerous organic impurities, and were utterly unfit for use.

Fourteen specimens of green wall-paper on sale in the city were found to be coloured with arsenical green.

The fines and costs imposed on 43 persons convicted for selling adulterated food amounted to £252 11s.

Of the 43 persons convicted for selling or being possessed of diseased or unsound meat, 11 were fined £49 17s. The others, 10, were imprisoned—3 for 3 months each, 3 for 2 months each, 2 for six weeks, and 2 for 14 days each. Total convictions, 64.

#### THE ROYAL IRISH ACADEMY.

A MEETING of the Academy was held on Monday evening at their house, 19 Dawson-street.

Dr. William Stokes, President, occupied the chair.

The following papers were read, viz.:—By Mr. M. Donovan: “On some improvements of the Comparable Self-acting Hygrometer, which registers the maximum and minimum of humidity and siccidity of the Atmosphere, in the absence of an observer.”

John Casey, LL.D.: “On a new method of finding the Equation of the Squares of the differences of the Roots of a Biquadratic, given by its general equation.”

H. M. Macintosh, B.A.: “On the Anatomy of the Coati Mondis and Marten.”

The Secretary, for Dr. Collins: “On Accessory Lobes of the Human Lung.”

The following were admitted members:—Rev. J. Graves, R. E. Lyne, E. Goold, Dr. M'Swiney, and H. S. Sweetman.

In the last report issued by the Council of the Academy it is stated that—

A considerable number of objects have been acquired for the museum of the Academy within the past year. The Treasurer-trove regulations are found to work for our advantage; and through their operation we have obtained, in particular, a large collection of silver coins of the reigns of Elizabeth, James I., and Charles I. The O'Brien Vase, which had been for some time deposited in the Bank of Ireland, has been removed to the Academy's house, and placed in the strong room. The Ogham inscribed stones, ten in number, purchased from the representatives of the late Mr. Windele, have been arranged in the crypt, one being set vertically in the

floor, and the others placed either on iron stands in the bays at the south side, or on the dwarf walls forming the bays. These stones are all now easy of access, and, in the daytime, have the advantage of a light well adapted to the examination of their respective inscriptions. It is much to be regretted that the crypt, which has been devoted to the purpose of a Lapidary Museum, is not provided with a convenient entrance, and is destitute of proper arrangements for its heating and lighting with gas. Representations on the subject of these defects have been made to the Board of Works, but as yet without result. The placing of our collection of antiquities in the new museum rooms has been actively proceeded with, and is now nearly completed. Applications have been made to the Government several times in recent years for an increase of the public grant to the Academy; an additional sum of £400 was included in the estimates for 1873-4, and was voted by Parliament. Of this sum £200 were to be expended in the publication of materials prepared with the aid of the grant for researches on Celtic manuscripts, and £200 applied to defraying the expense of opening the Academy in the evenings. The council have had under consideration the measures which it would be desirable to take with a view to carry out the latter object as regards the museum. The Academy has sanctioned the following, among other grants, from the fund at its disposal for aiding scientific researches by providing suitable instruments and materials:—£40 to Mr. W. Bailey to investigate the fossils of the coal districts in Ireland, with a view to their comparison with those of British and other coal-fields; £50 to Professor Haughton to complete an investigation into the chemical and mineral composition of the successive lava-flows of Vesuvius. The treasurer reports that the general financial condition of the Academy is highly satisfactory. We have lost by death within the year seven ordinary members, viz.: William Barker, M.D.; Simon Foot, Esq.; Right Hon. Col. French; Richard H. Frith, C.E.; W. L. Ogilby, M.A.; Right Hon. David R. Pigot, Chief Baron of the Court of Exchequer; Robert W. Smith, M.D.

#### L A W .

##### WATER SUPPLY.

A CASE has been heard at the Kilmainham sessions—*Flood v. Guardians of the South Dublin Union*, before the Hon. Charles Trench, which was an appeal brought under the Poor Law Act, 1 and 2 Vic., to quash a rate of 2s. 10d. in the pound, which had been struck by the defendants in the month of December last. The appellant is a ratepayer living in the town of Terenure, and the appeal was brought by him on behalf of himself and many other ratepayers in the Rathfarnham electoral division. It appeared that, prior to the month of August, 1872, the village of Terenure had been supplied with water by the Rathmines Commissioners, and in that month the sanitary officer reported to the guardians that the supply was not sufficient, whereupon the guardians forthwith entered into a contract with the Corporation Waterworks Committee to erect two fountains in Terenure, and to supply them with water at a cost of £4,300. The guardians borrowed this sum on a mortgage of the rates to the Loan Commissioners. And the grounds of objection to the rate were that a sum of £580 was included in the rate sought to be levied off the Rathfarnham electoral division alone, whereas the appellant contended it should be levied off the entire union, and also that the mortgage was illegal, inasmuch as the guardians did not serve any notice on the Rathmines Commissioners requiring them to supply the water previous to entering into the contract with the Corporation, in pursuance of an Act of Parliament relied on by the appellants as requiring such notice.

Mr. Evans, the Secretary of the Rathmines Commissioners, was examined on behalf of the appellant, and proved that the Corporation water-pipes laid down for the supply of the two fountains were 12-inch mains; that they were laid alongside the Rathmines water-pipes from the Appian way to Terenure, and that they could have been brought from the Corporation main at Harold's-cross to Terenure, being not more than one-third of the distance. The arguments occupied the day, at the conclusion of which the chairman stated he believed there was considerable difficulty in the case, and he would reserve judgment.



## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

POET-STREET.—(first visit.)

MANY months having passed since we visited a street or lane on the south side of the Liffey in the pursuit of knowledge under difficulties, we determined to vary our rambles by a visit or two to one or more of the famous localities in the old quarters of the Unknown City. Selecting a centre known to us from our early boyhood, we found ourselves after a short while gazing on the old red-brick fronts of the once famous Poet-street. Each old house, off-street, and cross-street conjured up a memory, a name, and an incident; and our recollection, which seemed small when we entered the thoroughfare, gradually enlarged as we moved onward, with a mind refreshed by incidents suggesting incidents. Every step was hallowed and historic ground. Here and there were homes or temporary residences of dramatists, poets, lawyers, actors, actresses, singers, musicians, professors, clergymen, schoolmasters, historians, novelists, and distinguished natives and foreigners in many walks. The names of not a few were faded out of the recollection of our generation, but the works of several were still appreciated, and were giving delight to thousands of family circles. Buildings had been demolished and buildings erected here and there since we first traversed the thoroughfare, but many of the old fronts still remained staunch, though weather-beaten, shewing by their bond and the form of their door and window the ways and methods of their builders. Time was when Poet-street echoed to the rejoicings of many a great pageant and ceremonial, of civic show and military display, of theatrical successes and excesses. History is not silent on these matters; but, in this doubting and utilitarian age, personal interests absorb the whole man, and leave him little love and less leisure to bestow on objects that ought to be endeared to him from their grand, old, and inspiring associations. When citizens cease to love the history of their city, they are undeserving of the name of citizens. There are no surer signs of a nation's or a city's decay than the loss of its public spirit. Public spirit preserves and improves, and, where it exists, the national memorials will be protected, and the institutions that reflect an honour on our olden citizens supported and perpetuated. We must cut short our musings, for here comes our trusty cicerone, and in his hands we will leave the task of telling what is worthy of recital connected with Poet-street.

"My recollections, sir, of this street extend back to the close of the last century—indeed I may go further, for, adding the memories of my grandfather to my own, and also what he had communicated to him and learned from those who preceded him, I think I will be enabled to recall much that will interest you. You will excuse me if I adopt the fashion of telling events in my own way as they occur to my mind, without any chronological order being observed.

"Poet-street was once a most fashionable part of the city, and continued so even into the present century. Several popular members of the Irish Parliament and lawyers and remarkable citizens lived in this street in the last century. Among the former were: James Chatterton, who represented the borough of Doneraile, and who was also a King's Counsel; William Caulfield (the borough of Tusk); Nathaniel Warren (city of Dublin). These three members, I believe, were long resident in this street. Francis Hardy, another Irish M.P., and the genial biographer of Lord Charlemont of Volunteer memory, resided for awhile in this street. Among the legal worthies who resided in Poet-street in the last century were: Charles Walker, one of the Masters in Chancery; Francis Perry, Deputy Clerk and Keeper of the Rolls, and Deputy Usher of the Court of Chancery; Thomas Milewood, Deputy Pursuivant of the Court of Bankruptcy; Richard Evans, Clerk to Baron Power, of the Ex-

chequer Court; James Johnstone, Commissioner of Bankruptcy; Edmond Moore, barrister; Edward Westley, do.; J. W. Parvisol, do.; Stuart Hamilton, do. The notable Matthew Dowling, Seneschal of the Liberties, Kilmainham, and Robert Dowling, Registrar, also lived for some years in this street.

"Among the noted traders who lived in this street towards the close of the eighteenth century were John Moore, grocer, at No. 12, the father of our great national bard, Thomas Moore, in which house also the poet was born, and resided with his father for several years. John Long, king's sealcutter, lived at 42, and Daniel Murphy, coachmaker, at 23. This street, built in the last and present century, was well represented in the coachmaking interest. A very large number of attorneys resided in Poet-street, both in the eighteenth century and during the earlier portion of the present. Some of the worthies whom I have mentioned deserve more than a mere passing notice. Francis Perry, a deputy clerk of the Rolls, resided many years in Poet-street, where he died in April, 1794. Perry was a much-respected solicitor, and was well known to the Moore family; and the young poet seemed to be much attached to him, for in the *Anthologia Hibernica* for June, 1794, the following lines 'To the Memory of Francis Perry, Esq.,' appeared:—

"Life's fading spark now gleams the last dim ray,  
'Tis out—th' unfettered spirit wings its flight,  
In happier climes, to drink eternal day,  
And mix with kindred souls in realms of light.

"Farewell, blest shade (fit bliss the virtuous find!)  
While loos'd from earth, thou seek'st a heavenly sphere,  
And gain'st a wreath, by seraph hand entwined,  
Why yet for thee, thus flows the sorrowing tear?

"Alas! while memory can thy worth recall  
(For in thy mind each virtue claim'd a part)  
The dewy streams of grief, sincere must fall;  
The sigh must heave untutor'd from the heart."

"Thomas Moore was but a lad of fourteen or fifteen when he wrote these verses, and in the same year he entered Trinity College. The previous year he had inscribed some lines to his revered schoolmaster, Samuel Whyte, of Grafton-street. These lines also appear in the *Anthologia Hibernica*.

"Matthew Dowling, the seneschal of Kilmainham, was secretary to the goldsmiths' corps of volunteers; he also figured in several notable matters some years afterwards in the city, as also others of his family and name. A summons was issued in January, 1792, by Dowling of the grenadier company. This summons called upon the corps to meet on the following Sunday, at the parade ground, St. Michael Le Pole, Great Ship-street. The summons ended in the following ominous words:—'Last year of slavery; would to God I could say it was the last hour!' The authorities took fright, and after a consultation at a privy council, the Lord Lieutenant issued a proclamation against the meeting of the volunteers, and on the day of the meeting, the civil power, under the direction of Alderman James and Alderman Warren, with Colonel Lennox, afterwards Duke of Richmond, who commanded the 35th regiment, aided by the entire garrison and the artillery, surrounded the parade. The volunteer force being too small to cope with such an overwhelming military body as was brought against them, resolved, after due deliberation, not to dispute their right of meeting. The artillery on the occasion had lighted matches, as it was anticipated that a resistance would be offered, and everything was in readiness for the attack. The celebrated Walter Cox, though a mere youth at this time, had the command of the second company of the volunteers, and it was said his courage and sentiments on the occasion was 'highly approved of by his brother soldiers and his superior officer, Major Bacon, who was afterwards hanged.'

"Not alone, sir, towards the end of the last century, but in the earlier years of it, Poet-street was distinguished. On a large plot of ground adjoining this, stretching and extending into Little Shortford-street, the first stone of what proved afterwards to be a remarkable theatre, was laid on May the 8th, 1733, about the same period the Irish Parliament House was erecting. There is reason to

believe that the reputed architect of the Parliament House was also the architect of the new theatre. The ceremonial of laying the first stone, or rather the first four stones, was a remarkable one in many respects. The Right Hon. Richard Tighe laid the first stone, the Hon. General Napier the second, William Tighe the third, and the fourth was laid by Hon. Sir Edward Lovet Pearce, Knt., surveyor-general at the time of the king's works in Ireland. The prints of the period state there was a prodigious number of persons present, and that each stone was laid with a flourish of trumpets, drums, a band of music, and loud acclamations of the people. Under each stone were placed medals struck for the occasion by the managers of the old Theatre Royal. Plenty of choice wines were provided for the gentry by the managers, and several casks of ale were given to the people assembled. The ceremonial was signalled even further, for each of the gentlemen who laid the foundation stones made presents to the workmen, and all was wound up by a sumptuous dinner, given at the cost of the managers, to the nobility and gentry. Poet-street theatre was run up with such expedition, that it was finished and ready to open in ten months. The first night was on March 19th, 1733 (Old Style), and the first play was Farquhar's comedy, 'The Recruiting Officer.' At this early date there were even three theatres open in Dublin:—Smock-alley, Rainsford, Madame Violante's, in George's lane (South Great George's-street), with minor places of public amusement, among which was the famous Tony Ashton's Medley, in Patrick's-close. About the same period was also built a new music-hall in Crow-street, by a Mr. Johnson, on the ruins of which, many years afterwards, arose the celebrated Crow-street theatre, remembered still by many of our citizens, when under the management of Frederick Jones.

"The history of Poet-street theatre, and of the great stars of the musical and dramatic world, who made their Dublin *début* there, would take many chapters to tell. It would include numerous names from the days of Quin, Cibber, Foote, Garrick, Sheridan, and would include a variety of other worthies who though making their *début* on other theatres in the city, yet had several friendships and associations with the actors, actresses, singers, musicians and managers of Poet-street theatre. It was on the boards of Poet-street theatre that the celebrated and accomplished Peg Woffington, after she had quitted Madame Violante's booth, commenced her real dramatic career. She first was engaged to dance between the acts with other performers of the period, but it was not long until her wonderful grace and versatile abilities were developed. Her Polly in the 'Beggars' Opera,' and her singing drew crowded houses. Miss Woffington's Sir Harry Wildair also increased her fame, and led to tempting offers from Mr. Rich, of Covent Garden, London, which she embraced. About the year 1739-40—a year signalled by the severest distress, and long remembered in this city, a partial famine succeeding the coldest year on record—at this period it is stated that Peg Woffington made her first appearance in the character of Sir Harry Wildair. The newspapers of the day contain many tributes to Polly's genius, from her first success to her last. Among the earlier tributes paid to her acting, the one on her personation of the character of Wildair was considered good:—

"Peggy's the darling of the men,  
In Polly won each heart;  
But now she captivates again,  
And all must feel the smart.

"Her charms resistless conquer all,  
Both sexes vanquished lie;  
And who to Polly scorned to fall,  
By Wildair ravish'd, die.

"Would lavish nature, who her gave  
This double power to please,  
In pity give her, both to save,  
A double power to ease."

"When Miss Woffington returned, several years afterwards, to Ireland, she again appeared on the boards of Poet-street theatre, under the auspices of Mr. Sheridan, and greater encomiums were showered upon her.



Miss Woffington's early years are enveloped in much obscurity. Her father is supposed by some to have been a bricklayer, I believe; and it has been authoritatively stated that her mother for many years sold fruit at the entrance of Fownes's-court in this city. Of poor but honest parents, and from such a lowly origin, did the celebrated Peg Woffington spring, to afterwards conquer by dint of merit the applause of the whole British public.

"Of some of the mishaps that overtook the actors and managers and others connected with the theatre in this street, and of the notable characters and incidents connected with Poet-street in the earlier part of the present century, I will tell you, Mr. O'Flanagan, on our next visit here. It is clear we cannot take note of the multitude of matters connected with this historic quarter during one short hurried visit."

Agreeing to the suggestion of our trusty and respected guide, we both turned into a street leading directly to the Green, where we parted for the evening with the "Oldest Inhabitant."

## THE RUIN AND RE-BUILDING OF NATIONS.

[Being Extracts, with Notes, from "An Essay towards Preventing the Ruin of Great Britain," by George Berkeley, Bishop of Cloyne. First printed in London, A.D. MDCCXXI.]

It is impossible to estimate the loss which this country, and more particularly its capital, has suffered through the absence of a proper public spirit. George Berkeley's remarks are as applicable to-day on this point as they were when first written. The state of our city and its institutions (which are far from the healthy condition in which they ought to be) show plainly that the mass of our people—nobility, gentry, and commonalty—are governed more by their own selfish and personal interest than a broad, manly, and wholesome public spirit.

"Public spirit, that glorious principle, is so far from being cherished and encouraged, that it has become ridiculous in this enlightened age, which is taught to laugh at everything that is serious as well as sacred. The same atheistical narrow spirit centering all our cares upon private interest, and contracting all our hopes within the enjoyment of this present life, equally produceth neglect of what we owe to God and our country. Tully hath long since observed 'that it is impossible for those who have no belief of the immortality of the soul, or a future state of rewards and punishments, to sacrifice their particular interests and passions to the public good, or have a generous concern for posterity;' and our own experience confirms the truth of the observation.

"In order to recover a sense of public spirit, it is to be wished that men were first affected with a true sense of religion, *pro aris et focis* having ever been the great motive to courage and perseverance in a public cause.

"It would likewise be a very useful policy, and warranted by the example of the wisest government, to make the natural love of fame and reputation subservient to promoting that nobler principle. Triumphal arches, columns, statues, inscriptions, and like monuments of public services, have in former times been found great incentives to virtue and magnanimity, and would probably have the same effect on Englishmen which love had on Greeks and Romans. And, perhaps, a column of infamy would be found a proper and exemplary punishment in cases of signal public villany, where the loss of fortune, liberty, or life, are not proportioned to the crime; or where the skill of the offender or the nature of his offence may screen him from the letter of the law."

[Nothing shews so plainly and clearly the lack of public spirit among our people, as the absence of public statues from our streets and other open spaces. Although public buildings increased, and architecture was

somewhat rife during the short-lived parliament of 1782-1800, yet that era added no statues of native worthies to our streets and squares. It was only within the present century that monuments and statues of men of note were erected in any number; and even these were not to the honour of natives. Within the last quarter of a century, our city has had an excess of public statues, erected to the honour of Irishmen who deserved well of their country. There is still a wide field for the display of public spirit and the *amor patriæ*. Our streets, for the most part, have foreign names, or names that suggest nothing worthy or heroic; baptized by uxorious husbands or wives to the memory of their living or departed worth. These streets and terraces live on in no one's memory, save the relations of the builder, or owner, or those who have to inhabit them. A pillar of infamy might be judiciously adopted, in some instances, to hand down a great villain's name to posterity; and, we know instances in the history of the country that might be selected. Pillars of infamy, before the age of printing, would have been more suitable than at present. We can photograph and compare the faces, and depict the characters of the greatest scoundrels with facility, and transmit their names to future times. After all, it is, perhaps, doubtful whether it would be advisable to enlist the service of art, or to waste marble or granite in helping to perpetuate publicly the infamy of a wretch guilty of a great crime.]

"Several of these are to be seen at Geneva, Milan, and other towns in Italy, where it is the custom to demolish the house of a citizen who hath conspired to ruin his country, or been guilty of any enormous crime towards the public; and in place thereof, to erect a monument of the crime and criminal described in the blackest manner. We have nothing of the sort that I know of, but that which is called The Monument [London], which in the last age was erected for an affair no way more atrocious than the modern unexampled attempt [the South Sea project] of men easy in their fortune and unprovoked by hardship of any sort, in cool blood and with open eyes to ruin their native country. This fact will never be forgotten, and it were to be wished that with it the public detestation thereof may be transmitted to posterity, which would, in some measure, vindicate the honour of the present, and be a useful lesson to future ages."

[The following extract, as it touches upon matters essentially within our province, is entitled to particular attention. Academies for painting, sculpture, and architecture, were unthought of almost in Great Britain, when Berkeley wrote his essay; and our parliament buildings in London or Dublin, as pieces of architecture, were unworthy of the name. Ere the great and good prelate died, he saw buildings arising around him, and institutions springing up, to the creation of which his own advocacy contributed not a little.]

"Those noble arts of architecture, sculpture, and painting do not only adorn the public, but have also influence on the minds and manners of men, filling them with great ideas, and spurring them to an emulation of worthy actions. For this cause they were cultivated and encouraged by the Greek cities, who vied with each other in building and adorning their temples, theatres, porticos, and the like public works, at the same time that they discouraged private luxury; the very reverse of our conduct.

"To propose the building a parliament house, courts of justice, royal palace, and other public edifices suitable to the dignity of the nation, and adorning them with paintings and statues which may transmit memorable things and persons to posterity, would probably be laughed at as a vain affair, of great expense and little use to the public; and, it must be owned, we have reduced ourselves to such straits, that any proposition of expense suiteth ill with our present circumstances. But how proper soever this proposal may be for the time, yet it comes so properly into a discourse of public spirit,

that I could not but say something of it; and at another time it will not seem unreasonable, if we consider it is no more than the wisest nations have done before us—that it would spirit us to new arts, employ hands, keep the money circulating at home, and, lastly, that it would be a notable instance of public spirit, as well as a motive to it.

"The same noble principle may also be encouraged by erecting an academy of ingenious men, whose employment it would be to compile the history of Great Britain, to make discourses proper, to inspire men with zeal for the public, and celebrate the memory of those who have been ornaments to the nation, or done it eminent service. Not to mention that this would improve our language, and amuse some busy spirits of the age, which, perhaps, would be no ill policy.

[The writings of George Berkeley, as we have already remarked, were powerful of good. Indeed they created a public spirit in towns and cities, where previously there was none. In his own country, improvements followed every essay of his pen. In 1721, there was no parliament building in Dublin suited to the national government, either in style or extent; but by 1729, the foundation of what promised to be a noble one was commenced. Market-houses and linen-halls also sprung up in the interim, and in every decade for thirty years afterwards, down to 1753, the period of Berkeley's death, some great public improvement took place, even in Dublin, in the foundations of churches, hospitals, asylums, and other public institutions, of a charitable or educational kind—Mercer's and St. Patrick's Hospitals, the Lying-In Hospital, and the Royal Dublin Society, he saw established before his death. There were several other institutions sprung up in Ireland and its capital, between 1720 and the period of the prelate's demise, that owe their foundation to the creation of a public spirit, to foster which Berkeley laboured earnestly and long.]

"This is not without example, for, to say nothing of the French Academy, which is prostituted to meaner purposes, it has been the custom of the Venetian senate to appoint one of their order to continue the history of the Republic. This was introduced in the flourishing state of that people, and is still in force. We fall short of other nations in the number of good historians, though no nation in Christendom hath produced greater events, or more worthy to be recorded. The Athenian senate appointed orators to commemorate annually those who died in the service of their country, whilst solemnity was performed at the monuments erected in honor of them by the public; and the panegyrics composed by Isocrates and Pericles, as well as many passages in Tully, inform us with what pleasure the ancient orators used to expatiate in praise of their country.

"Concord and union among ourselves is rather to be hoped for as an effect of public spirit, than proposed as a means to promote it. Candid, generous men, who are true lovers of their country, can never be enemies to one-half their countrymen, or carry resentment so far as to ruin the public for the sake of party. Now I have fallen upon the mention of our parties, I shall beg leave to insert a remark or two for the service of both, Whig or Tory, without entering into their respective merits. First, it is impossible for either party to ruin the other without involving themselves and their posterity in the same ruin. Secondly, it is very feasible for either party to get the better of the other, if they could first get the better of themselves; and instead of indulging the little womanish passions of obstinacy, resentment, and revenge, steadily promote the true interest of their country, in those great clear points of piety, industry, sobriety of manners, and in honest regard for posterity, which all men of sense agree are essential to happiness. There would be something so great and good in this conduct as must necessarily overbear all calumny and opposition. But that men should act reasonably, is rather to be wished than hoped."



[It would be well indeed if warring sects and parties would keep well this advice of Berkeley's, and put it into practice; but unfortunately, neither in the pulpit or public or in the public arena will some individuals cease to be partizans, who can see no good in any system or method but their own. The remarks addressed to Whigs and Tories has its application to masters and men, or the employer and the employed. Strikes and lock-outs can never effect a permanent good by the users of them. The workmen cannot injure the masters without injuring themselves, and *vice versa*. Good feelings and friendly relations are indispensable to both, and if these are not maintained, so much the worse for both parties in the end. If the bad feeling which at present and for some years past has existed between masters and men is not controlled, and the differences between both settled by kindly conference and arbitration, the trade and manufactures of the British Islands are certain to seriously suffer at a future and not distant date.]

#### RATEPAYERS' PROTECTION IN DUBLIN.

We have laboured earnestly and long to create a public opinion, and to lead to a reform of the monstrous abuses in connection with the Corporation of this city. When we commenced our advocacy, scarcely a single journal in our midst devoted a paragraph, much less a leader, to the subject of Corporate abuses. We are pleased to see a change for the better, and that more than one of our morning contemporaries have begun to keep watch and ward over interests which are most important and serious. For many years moneys were disbursed, accounts audited, and reports passed without receiving the least challenge as to their correctness, on the part of our citizens. If some honest individual dared to dispute the correctness of any of the municipal payments or "sundries," he was met with a torrent of abuse by certain members of the Corporation, a portion of the Press betimes lending its assistance to silence or laugh down opposition.

We hope the citizens are now satisfied that the efforts of the recently-formed "Ratepayers' Protection Association" have had their good uses, and have been productive of public good. The deputation of that body who attended a few days ago at the City Hall convinced the Government Auditor, as they have convinced the ratepayers, that there were many items in the city accounts not only objectionable, but that several payments were illegal. They have also by their action proved to the public that the whole system of financial transactions is disgracefully managed, and calls for instant reform. No valid defence could be made to the objections urged and the abuses pointed out by the deputation. The Government Auditor was compelled to state that he would not sanction the payment out of the rates of the parliamentary expenses incurred in the abortive attempt to procure a bill enabling the Corporation to purchase the Alliance Gas Works. It would have been a monstrous proceeding were he enabled even by law to sanction such practices.

Here was the case of £250 paid to a member of the Corporation for parliamentary costs, and put down in the accounts as "advance on account of salary!" Then, with regard to the system adopted by the Corporation in paying their workmen through their superintendents, and entrusting them with the custody of large sums of money,

over which no method of check existed, could anything be more reprehensible or open to suspicion? Payments were continually made to scavengers, lamplighters, and workmen in general, but no proof existed of the time worked by those employed. Mr. Connolly received £1,200 in the year to pay twenty-four lamplighters, but the men might be dismissed and employed at pleasure, and there was no knowing what sums were really paid; receipts were absent, and many of the workmen probably existed in "buckram." Men could be dismissed at any time, and punished by deducting their salaries for some alleged neglect.

Here, then, is a system that needs and calls loudly for reform. The case of the £50 paid in 1871, in accordance with the brilliant system of loaning money to officers, is but part and parcel of the original method adopted in the Dublin Corporation for blinding the eyes of the ratepayers. It is not the only sum loaned and never repaid. We trust that legal means will be taken to recover this sum, as well as other sums, which were little less than fraudulent transactions.

We have repeatedly directed attention to the plurality of appointments existing in the City Hall, where a number of officers are paid yearly for duties that have no existence. One of the latest flagrant instances is in the case of the appointment of an auxiliary Main Drainage staff. How such a scandal could be continued to be perpetrated with impunity, we are almost at a loss to conceive. At the present moment, although the Government Auditor is not personally invested with authority to prohibit the payment of salaries to men who perform no duties, under the cover of a second or a third office, yet, the ratepayers have the power of signing a requisition and calling upon the Local Government Board to interfere. Let us inform the citizens that the law clearly lays down permission for meeting such deceptions; and, if it did not, there are other methods by which the abuse can be stamped out, and a check put upon its adoption at any future period. The amount of the sums illegally paid away and fraudulently appropriated in the Corporation of Dublin for the last ten years or upwards, will never be known, although it may be guessed at. We know members of the Council—old members, too—who have confessed their inability to fathom the secrets of the suspicious financial payments made on the part of the Corporation.

The beautiful manner in which the accounts have for years been kept and audited would puzzle any outsider to analyse. The rocks that he would split upon are not only those dangerous reefs known as "sundries," incidental expenses," and "petty cash" payments, but less suspicious sandbanks in which not only hundreds but thousands of the public funds have been swallowed up. It is clear that it is not only in the representation of the members, but in the working staff of officers a reform is needed. The City Hall would receive a partial purification if three or four, or half-a-dozen, of its present working and overpaid staff were cashiered. It would be invidious on our part to point any offices to be retrenched. We have no personal grudges against individuals, as our condemnation is directed solely against the system by which useful officers are corrupted, and made to condone the offences of their masters.

We are conscious that our advocacy is honest and above board; and, feeling that

we are acting as befits citizens, and in the interests of those for whom honest journalism should exist, we shall not cease our advocacy while we have nerve and reason left to use our pen, and see the last of the abuses stamped out that at present disgrace the Corporation of this city.

In conclusion, we would remind the ratepayers of Dublin, as a body, that they are called upon before God and man to render every assistance in their power to the efforts now made to reform the municipal representation of Dublin.

#### THE MAGAZINES.

THE *Gentleman's* for this month has an admirable variety of papers. The serial stories, "Olympia" and "Clytie," are continued. "Men and Manner in Parliament," by the Member of the Chiltern Hundreds; "Waterside Sketches;" the "Great Trial at Bar;" and "Locomotion in London," are all good papers. There is scarcely an inferior paper amongst the lot. The *Gentleman's* began the year well, and is continuing well.

In *Cornhill* this month there is a good paper on Livingstone, a subject now of some interest, and there is another good paper on Elizabeth Barrett Browning, the poetess. "On the side of the Mistress" is a continuation of the subject, "On the side of the Maid."

The *Practical Magazine* has a number of instructive papers worthy of the perusal of operatives as well as manufacturers; among them are: "Shipbuilding Trade on the Tyne;" "Coal-cutting Machinery;" "Gems of the Vienna Exhibition;" and an important one on "Paraffine Industry," written by Mr. Fred. Field, F.R.S.

#### CORRESPONDENCE.

##### SWIFT AND HANDEL.

TO THE EDITOR OF THE IRISH BUILDER.

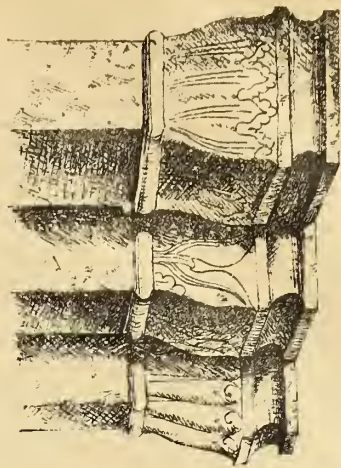
SIR,—THE IRISH BUILDER has once taken my part when unfairly attacked, so I shall not attribute some passages in your recent article on "Swift and Handel" to any unfriendly motive. Perhaps I was too hard on Swift, but in the course of an extempore lecture a man may now and then utter words which were as well unsaid. However, my lectures are not sermons, and I claim a fair amount of latitude in defending the greatest of musicians against one of the smallest of poets. Nor am I so imperfectly informed on the Swift controversy as you seem to imply. It was Swift's way to scoff at musicians: thus we find him ridiculing his organist Rosingrave in what, by a ludicrous misuse of the term (which, of course, he did not really understand), he called "his cromatic." He coarsely stigmatised the Bull's Head Society as "a club of fiddlers in Fishamble-street," and forbid his choir (who, to their honour, seem to have disregarded his tyrannical prohibition) from assisting them; and so I was justified in pointing out the folly of this assumed contempt for what this man could not really understand. Of this, too, everyone was then perfectly aware; for do you not remember the lines—

"Great Dean of St. Patrick's, how comes it to pass  
That you, who know music no more than an ass," &c.?

I am ready to admit the existence of a sort of contemptuous patriotism on the part of Swift towards Ireland, whose inhabitants he styled "this wretched people"; but I am not quite so disposed to insist on his Irishism as you seem to be. Even admitting that the wit first saw the light in Hoey's-court (and you know that Leicester has also claimed him), he was English by descent on both sides, and would often exclaim, "I am not of this vile country! I am an Englishman!" A sour, disappointed man he was, and always looked upon even his most valuable Irish preferment, the Deanery of St. Patrick's, as at best but a genteel banishment from his

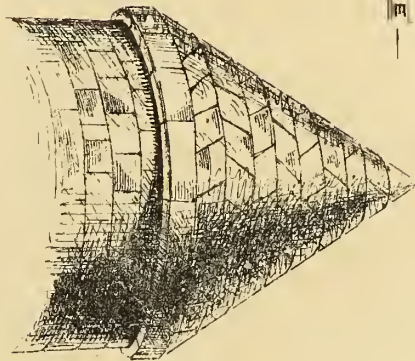


TEMPLE FINCHIN  
CLONMACNOISE

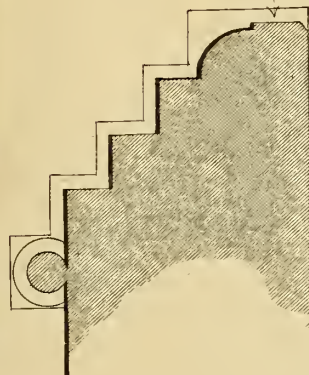


CAPITALS OF WEST DOORWAY  
OF CATHEDRAL

CAP OF ROUND TOWER  
AS ORIGINALLY



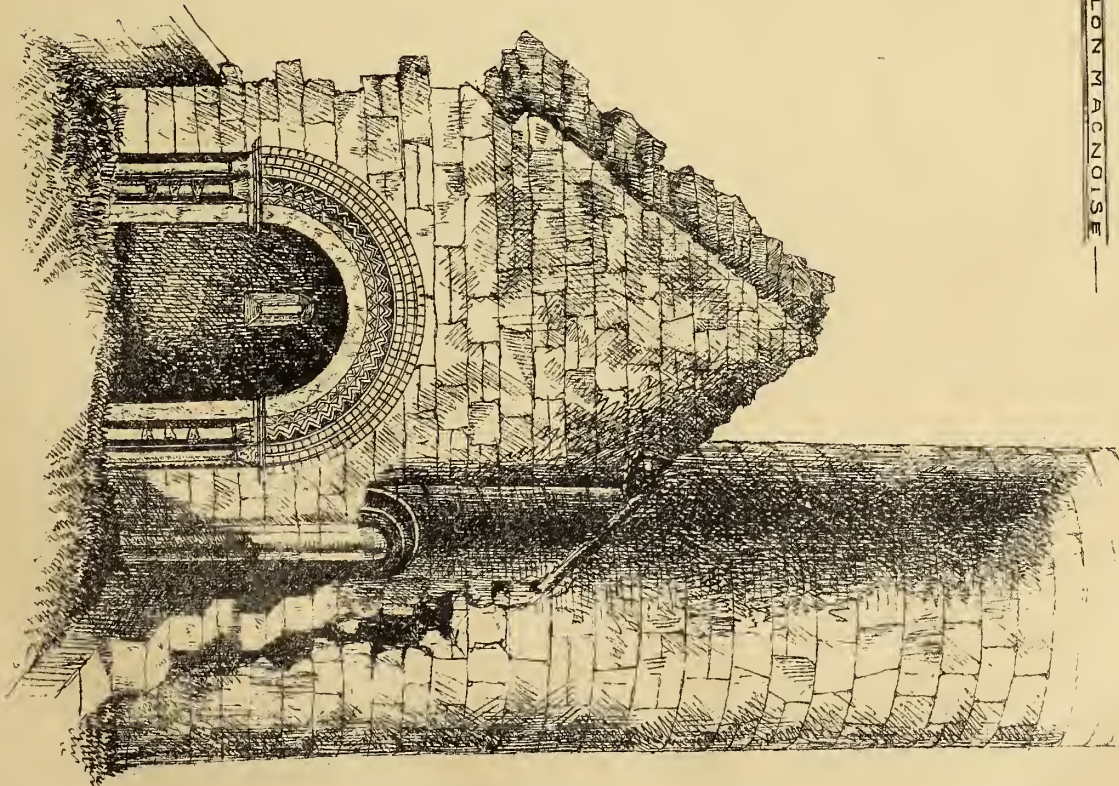
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PLAN OF WEST DOORWAY  
OF CATHEDRAL



TEMPLE FINCHIN  
CLONMACNOISE





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UNIVERSITY OF ILLINOIS



beloved England, and those literary and political coteries to which he affected to belong. I do not wish to depreciate his gift of a lunatic asylum to the country—

"To show, by one satiric touch,  
No nation wanted it so much!"

But I cannot agree in your estimate of the relative value of Handel's and Swift's contributions towards the alleviation of human misery. It is admitted that, during his lifetime, Handel's generosity and charity to the sick and needy were incessant; even when almost ruined, we find him giving performances for these objects. And I am sure I need not remind you of his liberality to "the Foundling Hospital," of which he was, in gratitude for his donations, made a governor. Besides, if space and time permitted, I would readily prove that the "Messiah" alone has fed more hungry, healed more sick, and clothed more naked, than all the wits and satirists of Europe combined.

Profits produced by Handel's "Messiah"  
From 1749 till 1759, eleven performances,  
under Handel's direction, for Foundling  
Hospital - - - - - £6,935  
Do., 1760 till 1768, under direction of  
John Christopher Smith - - - - - 1,332  
Do., 1769 till 1777, under direction of  
Mr. Stanley - - - - - 2,032

Total given to hospital, 1749 till 1777, £10,299

From the commemoration of Handel alone (A.D. 1784), at the Abbey, £6,000 profits were paid to the "Royal Society of Musicians"—a charitable society.

These are not a hundredth part of what Handel's music has produced for the poor.

Do not try to defend the filthiness of your hero's writings, nor seek to justify them by the practice of the time, for he far exceeds all his contemporaries in the most grossly revolting descriptions. How any man could behave as he did to Stella, Vanessa, and Sarina (Miss Waring), too, and escape the character of heartlessness, puzzles me. It would seem as if there is a broad difference between your ideas and mine of the relations between the sexes. Pray, did you ever read the correspondence of Swift and Stella? The grossness of this (including the lady's *bon mots*) is surely far more than the manners of the day, coarse as they were, can account for. That Swift was a mystery, I agree with you; he was verging on madness more than once during his life, and had frequently expressed a dread lest he should, like some tree, "die at the top"—a fate which overtook him after all.

But now for the weakest point of your article. Pray, *who* are the musical composers who have lived in Dublin who were selfish or greedy of gain, or wealthy at all? Musical creative art is wretchedly paid; it is quite notorious that no Irish musician has ever amassed even moderate riches, not to say a fortune,—in fact, to feed and educate their children is quite as much as any of them can do. I will name four composers, all eminent and well-conducted men—Stevenson, Smith, Blewitt, and Logier. Which of them left any money behind him? You say "the public have heaped favours on several, and subscribed capital to found institutions in their name." Pardon me for asking you to state your facts. I know of nothing answering to your description. The Dublin public is notoriously parsimonious with respect to music; they rush to the cathedrals, indeed, to hear *gratis* the works of Handel, but hundreds of them allow the plate to pass by with a nod, and those who do contribute give shamefully grudgingly. I appeal to the heads of our cathedrals for the verification of my assertion. Yet the same public that throngs St. Patrick's in crowds would not pay the one *shilling* admission to hear Handel's "Messiah," admirably performed as it was last winter at the Exhibition Palace by a chorus of 800, a good band, and all the best solo vocalists of Dublin.

What does the public subscribe to maintain our only musical institution—the Academy of Music? Literally, nothing! You have

charged the Dublin musicians with being greedy of gain and selfish. I appeal to facts. For myself, the very first concert I directed were for the famine of 1847; all the oratorios in Christ Church, given year after year for the parish schools; the last concert given for Mercer's Hospital (when Jenny Lind sang);—for all these I played and conducted gratis, nor were my exertions confined to the mere performances (as thoughtless people imagine), but necessitated the previous labour of days and weeks. My musical brethren, too, have nearly always assisted gratis on these occasions. I forbear to allude to myself further; but I will ask you, in justice to me, and before you accuse us of greed or selfishness, to make enquiries how much hard personal musical work have I done, both as composer, chorus master, and conductor, in Dublin during the last year, for which I never received one farthing! Do this, and publish the result, or else withdraw your charge.

It now only remains for me to thank you for the handsome way in which you generally have referred to me in your interesting article on "Swift and Handel," and sign myself, your's faithfully,

R. P. STEWART, Knt.

### CIVIC LYRICS.—No. LIX.

#### THE COLLAPSE.

(Air—"Rich and Rare.")

Big and black were the lies they told,  
To save their bacon and spend our gold;  
But, oh! their shame was far beyond  
What judge or jury ever conn'd!

They framed a hundred bills, and more,  
And bribed their witnesses by the score,  
To swear 'twas for the public good  
They acted, though misunderstood.

Some people stared, some people curs'd,  
And some with laughing had nearly burst,  
At the wise and prudent men of brass,  
Of water and 16-candle gas!

Winter came with its biting frosts,  
Lawyers' missives, and bills of costs.  
Committees stared at the swelling hosts  
Of hungry, dunning, walking ghosts!

"What will we—oh! what shall we do?"—  
This was the cry of the shipwreck'd crew,  
Who knocked about over the surf,  
Raving mad upon gas and turf!

O! haste, Sir Knight; haste and explain  
The cause of the water on the brain!  
Is it for want of cash or sense,  
Or does it arise from incompetence?

Hang the Citizens' Committee clique!  
Hang the Government Auditor quick!  
Nothing is left for us to spend;  
We've stretched our tether unto the end!

Big and black were the oaths they swore—  
Every member a half a score.  
As the meeting broke up on the Hill,  
They crow'd, they laughed, and are laughing still!  
CIVIS.

### TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville.*

THE manner in which milk is at present adulterated is really a serious affair; irreparable injury is being done to children and invalids by the nefarious custom of watering milk, and it now entirely lies with the Public Health Committee whether we are to be poisoned by deleterious substances introduced into our food, or whether they will at once take steps to bring about a genuine sanitary reform. In France, sanitary officers go round and test the contents of the milk pails by means of a clever contrivance called a lactometer. On the proof of adulteration, the contents of the cans are emptied into the gutter, and the vendors heavily fined. Why couldn't some such easy plan be tried over here? But I fear we will not have reform until Sir Cockolorum Bumblepup or some other corporate snob has his precious intestines severely injured.

I am glad to have to proclaim it, that a gentleman bearing the highly suggestive name of "Jordan" ("and I will not deny, in defence of the same, what that name might imply") was mulcted in the penalty of £2 and £1 costs for watering his milk. Mr. Jordan has no cause, however, to kick up his heels upon his green-eyed monster, as a number of parties procured assorted sentences for like digressions.

If Mr. Dante had visited the sequestered glade of Moore-street on a Saturday night, it is not at all improbable that another horror would have been added to his already rather lively *Inferno*. On all sides activity, drunkenness, and brawling contest for right of way, and, as may be imagined, facilitate the traffic to an immense extent. In the gutter stands an individual who favours you with such a high bass of "Willie, we have missed you," that you are almost tempted to talk "vigorous," or wish the erratic William had delayed his return for a more fitting time and place. Here, in a half-way half-a-dozen of the corner confraternity are initiating a string of gaping juveniles into the mysteries of "double-shuffle," their feet, while going through the educational movements, emitting a sound not unlike what would be produced by half-a-dozen cricket stumps escalating a family pew. Ragged urchins, the very antipodes of aldermanic proportions, enjoy the healthful occupation of gracefully resting on their hands whilst their feet ornament the dead walls of the neighbourhood. Some of the whilom sinners charged with XX stagger home in the wrong direction, on both sides of the way, in that flowery path which has its termination before the minister of justice at the witching hour of half-past nine on Monday morning; while others delve their course through the adjacent lanes and alleys, sneaking back into the paths of soda and sobriety, and basely defrauding the magisterial poor-box of its accustomed ten shillings. Pug-nacity has its supporters in Moore-street, too; bruisers of all descriptions loaf about. Boxing men—fine fellows in their way, no doubt, and in everyone else's way, too—do the cock upon this their own peculiar dung-hill; while the advocates of peepers darkened by the shadowy touch of fingers five doubled pugnaciously, and those who tap the heated claret in the early morn and dewy eve, nor yet relax their hands at midnight's witching hour, occasionally drop upon you, and bawl "fight" into your ear with such a sibilating intensity that it seems for all the world as if a gross of fleas were playing at high jinks in that organ. This sort of party generally succeeds in making himself obnoxious until a blue-coated lictor comes in sight—which is seldom. You are sometimes hustled into the arms of a stalwart son of the coal quay, who bestows upon you so strict an embrace that you are sincerely inclined to believe the very vital spark itself is about to abscond from your frame; and, in case he bestows nothing else on your frame, you can whistle or recite the hundredth Psalm, which latter will doubtless procure an encore. Altogether, the class of persons you meet in Moore-street on a Saturday night would hardly be admitted to a corporation swell feed, and Lord knows I can't say anything less for them.

A new comic journal, entitled the *Sandwich*, has made its appearance in Dublin, at the moderate cost of sixpence. I cannot at present say much of this new effort, nor will I undertake to state that the irrepressible eye-glassed bucolio, who "does" the funny leaders for that friend of my bosom, the *Sportsman*, *Egoist*, and *Humbly*, does not contribute to it, as its jokes are quite bad enough to make it probable that he does. It is rumoured that the "sawdust" has an enormous circulation at the buttermen's, and is the beloved and chosen of provision-dealers and so forth, on the route to the northern line. If the editor of the *Sandwich* is an inquisitive man, I'd prefer a cheque on the "National."

OLYMPUS.



## PUBLIC RIGHTS AND PUBLIC NUISANCES.

## THIRD ARTICLE.

It is well known that the Corporation of this city have had for a considerable period depôts established for the scavage or manure they have collected in the ordinary way, or in pursuance of their powers under the Sanitary Act, wherein they had taken possession of certain heaps of manure which were constituted a nuisance, from the default of the owners in not removing them. The action of the Corporation has more than once been the removal of a nuisance from one particular locality to another, where a worse nuisance was continued by them unchecked and often unnoticed. It may be as well for the public to know, and individuals particularly interested, that if any manure or other thing remains in the hands of the sanitary authority after abating a nuisance, they may sell it by public auction after not less than five days' notice, unless the delay would be injurious to health, when an order for immediate destruction of the material may be made by the justices. In connection herewith there is a point which should not be lost sight of, as it involves a clear public right. Any money resulting from such sale may be appropriated in payment of the costs and expenses incurred by the sanitary authority, but any surplus has a right to be paid over on demand to the owner of the material, whatever it may be.

We do not at the moment remember one instance of a surplus being paid over to any citizen for material seized. Our Town Council is too fond of, and too hard up for, money, not to make the costs always swallow up the value of the material seized, and to expect a surplus in favour of the owner whose manure or other material was seized as a nuisance, would be to expect that the Main Drainage of Dublin will be completed by next Christmas! In the matter of clearing suburban pools or ditches the surveyor of highways may make, scour, cleanse and keep open all ditches, drains, gutters, or water-courses in or through the lands or ground adjoining or lying near to any highway, upon paying the owner, if they are not waste or common, for any damage done. Should any ditch, gutter, drain, or water-course used or partly used for the conveyance of water, filth, sewage, or other matter from any house, buildings or premises, be a nuisance, the sanitary authority, if they think it necessary, are required to lay down either partly or entirely a new sewer, and to keep it in repair. They can enter lands for this purpose and can assess all lands and buildings to pay either at once or in payments spread over a term of years the amount expended by them for the purpose. If the sewer, &c., be within the jurisdiction of several sanitary authorities, they each can levy for the share of the expenses within its own district. The assessment is however, limited to one shilling in the pound on the rateable value of the work. If the inhabitants should come to the conclusion that all or a portion of the work is unnecessary or that some species of jobbing is involved, of course they can get up a requisition to the central authority, and if then a clear ground be made out for an enquiry, it will be held. In addition to the nuisance which we have enumerated in former articles, there are a number of others arising from malting houses, candle and soap works, places for boiling offal or blood, or for boiling, burning, or crushing bones, or any manufactory, building or place used for any trade, business, or process or manufactory causing effluvia. If the medical officer of health, or any two medical practitioners, or if ten of the inhabitants report the existence of nuisance arising from any of the above causes likely to prove injurious to the health of the neighbourhood, the sanitary authority are to obtain a summons against the parties, causing them to appear before two justices in petty sessions, and after due enquiry it has been proved that the trade or business complained of is injurious, and the person so offending has not endeavoured to use the best practical means

of abating the nuisance, then the owner or occupier, or any person employed by the owner or occupier, may be fined £5, or not less than 40s., and upon a second conviction £10, and for each subsequent conviction double the amount of the penalty imposed for the preceding conviction, up to £200.

The person convicted may appeal in each case against his conviction, and the justices must suspend their final determination. It may happen that the prosecuted party at the very commencement of the proceedings against them may discover that the magistrates have no jurisdiction. A real offender, or perhaps an unjustly indicted person, may thus escape; but if a real offender the sanitary authority can institute further proceedings in law and equity in the supreme courts for preventing or abating the nuisance complained of. This provision, however, only applies to the districts of an urban sanitary authority. Public notice should be repeatedly given to persons to remove their manure or other offensive matter from yards, stables, or mews; and if the person or persons neglect to do so after a reasonable interval, they will be liable to 20s. per day for every day that the manure or other offensive matter is allowed to accumulate. This provision also applies only to urban sanitary districts.

In Dublin, the duty of sanitary inspection is not at all, nor has it ever been, carried out efficiently. Our inspectors are not qualified for their duties; and, as a rule, they shirk performing disagreeable duties, or informing themselves of matters that are clearly within their province. Their masters, the local rulers, are often allowed to escape with impunity, and the weaker citizens are pounced upon. In accordance with the Sanitary Act, the inspector of nuisances is bound, from time to time, to make a careful inspection of the district that is allotted to him, and to exercise the various powers for abatement and prevention of the nuisances we have mentioned. It is the duty of the medical officer of health to aid him and direct him by advice. It is also the duty of the surveyor or clerk of the sanitary authority, to afford the inspector necessary information. In fact, the inspector of nuisances should be in constant communication with all the above officers. In default of the sanitary authority carrying out their duties, the Local Government Board, if apprised of the neglect by the inhabitants, may authorise the chief officer of police to discharge the duties; but it must be remembered, he will not be legally empowered to enter any house, or part of a house held as a dwelling, without the consent of the occupiers, or without a warrant of a justice of the peace.

In connection with houses in which there are cases of fever and where disinfection is necessary, and on the subject of public conveyances for the removal of fever cases to hospitals from lodgings or ships, and the penalties and other matters attached, we will treat of in next paper. In respect to public conveyances or ambulances, this city is miserably accommodated; and the system in practice in Dublin for several years reflects the greatest discredit upon our municipal authorities.

Divided sanitary authority seldom works very well; but divided or undivided sanitary duties in this city are not half performed, and the law is openly and flagrantly evaded, both by the authorities and a large portion of the inhabitants.

## BELFAST.

The new Presbyterian church, Fitzroy-avenue, Belfast, was opened on Sunday last. It consists of a nave, east and west transepts at south end, vestibule at north end, minister's room, detached tower and spire at north-east angle. The extreme length inside is 86 ft., 43 ft. wide, and across transepts 67 ft. The ground-floor has a slight fall from the vestibule for about half its length, and affords accommodation for 576 persons. A gallery at north end, extending over vestibule, will give sittings for 144 additional—720 in all.

The main entrances are from Fitzroy-avenue, through double portals, which project from main gable, and terminate in large finials. In each of these portals is a deeply-recessed and elaborately-moulded doorway in four orders, having polished shafts of Connemara serpentine and Donegal granite, supporting richly-carved caps, from which spring archivolts with mouldings, enriched with foliage of scriptural plants. The church is lighted by traceried windows of two lights in side walls of each bay of nave, and by triple windows in main gable over vestibule, the centre one being 24 ft. in height, of four lights, having the head filled with geometric tracery, and the others of two-lights with plate tracery. The transepts, in addition to having windows in side walls similar to those in nave, have at a high level in their gables lofty triple lights with trefoiled heads, above which is a geometric wheel window. All the lights will be filled with leaded quarries of cathedral glass, of slightly varied tints, with narrow border of blue glass, except a large wheel window in the south gable, which is filled with stained glass, geometrically arranged. The tower stands a little distance from the north-east angle of the church, but is connected with it by a covered arcade, in which one of the staircases to the gallery is carried over, and the passage under this is groined in stone, the ribs springing from carved heads. The tower is 20 ft. square above the base, and rises to a height of 80 ft., whence the octagonal spire starts, and attains the total height of 162 ft. at top of vane. The broached junctions between spire and tower are covered by turelles, boldly corbelled out at angles, and terminating with high-pitched conical roofs. There are lucarnes on each of the eight faces of spire, their stone-capped roofs being carried by small columns, with carved caps and bases. The belfry in the upper stage of tower has a large pointed opening on each of its four sides, and these again are subdivided into two narrow openings by a central shafted mullion, supporting traceried heads. It is intended to make the floor of the belfry weatherproof, and dispense with the usual louvres, which interfere considerably with the transmission of sound. A separate entrance-door in the base of the tower gives access to the gallery staircase, which, rising from the porch, is continued across the groined arcade before mentioned into the north-east end of the gallery. The roofs, which are of high pitch, are supported on strongly-framed memel trusses, of which the curved braces are borne on cut-stone responds, having carved caps and bases. The ceiling, which is plastered, is approximately semicircular in section, and is formed into panels by large wood mouldings. Ventilators are placed in the upper line of panels, both in transepts and nave, except in two places, where the sunlights, by which the building will be artificially lighted, are suspended. The panels of ceiling and head of walls have been stencilled in three colours. A platform or tribune for the minister is elevated some feet above the floor, and is placed a little in advance of the south gable, where a recess is formed in the wall, finished with Bath stone responds, and moulded arch. The lower stage of the platform is formed of Bath stone finishing, with moulded and carved cornice at floor level, and above this it is placed on balustrade of pitch pine, having in front a semicircular arcaded projection for reading-desk. All the pewing is formed of selected pitch pine, with the bench ends moulded and capped with black walnut, French polished. The general contractor for the work was Mr. William M'Cammond, Antrim-road; the gas-fitting has been executed by Mr. R. Stewart, Victoria-street; Mr. Stevens has done all the carving; Mr. George Coulter, Ormeau-road, the varnishing and painting; and Messrs. R. Henderson, Ann-street, the heating. The architects are Messrs. Young and Mackenzie, Clarence-place, Belfast. The cost of the church when completed will be about £5,000. A lecture-room and sexton's house are in course of erection at the rear of the church, which will cost £1,600 additional.



## THE ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

THE quarterly meeting of this Association was held on the 1st inst., at Butler House, Kilkenny,

BARRY DELANY, Esq., M.D., in the Chair.

Lieut.-Col. F. E. Tighe, F.R.G.S., Rosanna, Co. Wicklow, and W. D. Henderson, Esq., Belfast, were elected as Fellows.

As Associates—Rev. V. R. Drapes, M.A., Kells; C. James, Esq., Kilkenny; Rev. D. O'Donoghue, P.P., Ardferit; Very Rev. Canon W. O'Sullivan, P.P.; Rev. Jeremiah Moloney, P.P.; J. M'Creery, Esq.; the Kilkenny Catholic Young Men's Society (per Mr. James Cox, their Hon. Sec.).

Mr. J. G. Robertson brought up the accounts for 1872, which had been found correct. It was ordered that the report be received and published.

Mr. Graves stated that the much-lamented death of Dr. James, since their last meeting, had caused a vacancy in their trustees, and in their committee, both of which should, in accordance with their rules, be filled up at the meeting following the occurrence. However, he thought they ought first to pass a resolution putting on record their sense of the loss which the Association had sustained in the decease of Dr. James, who had been a member since the society was first founded, had uniformly exerted himself to promote its interests, and whose hospitality the attending members had so constantly experienced since they had occupied the apartments in Butler House.

The following resolution, proposed by Rev. J. Graves, seconded by Mr. Watters, was unanimously adopted:—

"That this meeting—the first held since the lamented death of John James, Esq., M.D., Trustee and Member of Committee of this Association, and also one of its Founding Fellows—cannot separate without expressing their deep regret for the removal from amongst them of so good a man, and one who from the commencement of this society had in every way exerted himself to promote its interests from that period to the time of his death.

"It is also the unanimous wish of the meeting, that the sympathy of the Fellows and Members should be communicated to Mrs. James, conscious though they are, how little any tribute of the kind can do towards the alleviation of her deep affliction."

The following resolutions were also adopted:—

"That Patrick Watters, Esq., be elected Trustee of Association, in the room of the late Dr. James."

"That Samuel Ferguson, Esq., Q.C., LL.D., M.R.I.A., &c., be elected on the Committee of this Association in the room of John James, Esq., M.D., deceased."

### MEETING OF THE BRITISH ASSOCIATION AT BELFAST.

The hon. secretary reported that the proper steps had been taken to represent this association at the Belfast meeting of the British Association, in August next, and also to form a good collection of antiquities there on the occasion. It had been suggested by some northern members of our association, that our July meeting should be adjourned to Belfast, and held during the week of the gathering there; but, on mature consideration, it was thought better not to hold a meeting there this year, as all Irish societies ought to give way to that visiting our shores. Next year, however, was suggested as a fitting occasion for this association to hold one of its meetings at Belfast. There was no doubt that such a course of action might be desirable; the proposition could, however, be fully considered hereafter.

### THE HANOVERIAN AND JACOBITE STRUGGLE IN KILKENNY.

Mr. Graves laid before the meeting a parchment document, elaborately ornamented in the engraving, and having the seal of the Corporation of Kilkenny attached. This had been forwarded by a Galway member of the association—J. Stafford Kirwan, Esq.—at present sojourning at Bournemouth, who had found it amongst his family papers; he being a descendant of the Cornet Stafford, of the 1st Carbineers, in the reign of Queen Anne, referred to in the document. It was of considerable local interest, as illustrating the struggle which had taken place in Kilkenny between the adherents of the House of Hanover and those who supported the second Duke of Ormonde in his views for the restoration of the Stuart Dynasty after Queen Anne's demise—those views the promotion of which had led to the flight and attainder of the duke immediately after George I. ascended the throne. Some documents from the Corporation archives, bearing on this struggle, had been already submitted to the meetings of the association by Mr. Watters. In that now before them,

the reference to the formation in Kilkenny of rival societies, termed "The Ormonde Club" and "The Hanover Club," was of much interest, as was also the signatures to the testimonial, which afforded a list of the Corporation and of all the citizens of Kilkenny well affected to the line of Guelph in the beginning of the last century.

### INSCRIBED CROMLECHS.

A communication was read from R. R. Brash, Esq., Cork, on this subject, in which he stated:—

"I have read Dr. Ferguson's interesting communication on Inscribed Cromlechs. I have for some years past been in the habit of examining monuments of this class with the expectation of finding Ogham characters in connection with them, but have hitherto failed. In one instance only have I found artificial marks on a veritable Cromlech; the monument is named the *Baalic*, and stands on the side of a hill about three miles west of Macroom, county Cork. It is formed by five supporting stones, enclosing a rectangular chamber; two at each side and one at an end, the other end being open; these support a table-stone, eight feet by seven feet, and from six to eighteen inches thick; it slopes at an angle of about thirty degrees. On the under side of this table-stone I found a series of artificial marks, covering almost the entire surface, consisting of lines straight and oblique, numerous crosses or lines intersecting at right angles, and other nondescript forms. The Cromlech stands east to west, and is on the townland of Scrahonard; 30 yds. from it is a pillar-stone, and three fields to the south, a fine rath, 80 ft. in diameter clear of the rampart, which is 16 ft. at the base, and 14 ft. high outside, from the bottom of the foss; this rampart is of earth, lined inside with stone; the entrance faced S.W., and was built of uncemented masonry. The marks on the table-stone of the *Baalic* are of the same type as those on the Lennon and Rathkenny stones, described in Dr. Ferguson's communications. I fully agree with that gentleman, that they never 'could have been designed to convey a meaning, much less a meaning to be arrived at through the medium of phonetic exponents.' They are evidently the arbitrary whims of a rude race, and must have been executed before the stone was placed in its present position, as it would be next to an impossibility to cut them afterwards, the space is so low and confined."

The communication of Mr. Brash went on to refer to the recent discussion in the association's *Journal* between Dr. Ferguson and him respecting the Ogham inscribed stone at Gowran, and he expressed regret that the former gentleman seemed to have felt hurt by a remark made, which he (Mr. Brash) did not intend to have any personal reference.

### THE SHRINE OF ST. MANCHAN.

The Rev. James Graves exhibited some admirably executed photographs of the Shrine of St. Manchan. He had long been aware that this precious example of Irish ecclesiastical art was preserved in the chapel of Boher, not far from Fermagh, in the King's Co. It was not, however, until 1871 that, having obtained an introduction to the Rev. John Dardis, P.P., its present guardian, he had been enabled to examine it. He found the shrine carefully preserved on a side altar, beneath a glass-case, and he trusted that it would remain in equally careful keeping. Formerly this invaluable work of art had been in the hereditary keeping of the Mooneys of Doon, in the King's County, the lineal representatives of the ancient tribe of O'Mooney; but the present representative of the family, wishing to be freed from the inconvenience of exhibiting the shrine to the numerous applicants who came to swear on it for confirmation of covenants, or to clear themselves from charges of theft or other derelictions, had handed the shrine over to the guardianship of the parish priest, in whose charge, and that of his successors, it had remained to the present day. The site of the monastic church of Lemanahan, or "St. Manchan's Grey Land," was some two miles distant from the chapel of Boher. Like many of those ancient churches, it was founded originally on an island in a bog. The land round it was now reclaimed, and the burial-ground, which retained some ancient Irish inscribed stones, surrounded a church with a fine twelfth-century western doorway; adjoining which were the foundations of St. Manchan's house. Connected with the church by a *togher*, or paved road, was a small cell, with a square-headed western doorway, said to have been the dwelling-place of the mother of the saint; and midway on this *togher* was anciently a flag where the saint and his mother were traditionally said to have met every day, sitting back to back at each side of the flag, but never exchanging a word.

The shrine was formed in the usual fashion, like the roof of a house with upright gables, was of large size, and had at its angles four massive bronze

rings for the insertion of staves to enable it to be carried in procession. The bronze ornamentation of the shrine was of the most beautiful and intricate character, and it was, besides, enriched by numbers of figures, in bronze gilt, of great interest, which would be fully illustrated in the paper which he (Mr. Graves) hoped to contribute to the pages of their *Journal*.

Amongst the other papers brought before the meeting was a continuation of the Rev. J. F. Shearman's "Loca Patriciana."

The association then adjourned till the first Wednesday in July.

## THE STUDY AND PRACTICE OF ARCHITECTURE.\*

(Continued from page 103.)

FROM these possible difficulties of the architect, we will now turn to other considerations. We are often told that a new style is the want of time, though why this should be required more than a new language, it is difficult to say. We have, however, to decide if novelty is to be our aim in architecture, or if it is to be archæology. Again, is engineering architecture? and if not, where is the missing link? You will perceive how many sided is the study of our art, and how much it differs in that respect from painting and sculpture. One difference will at once suggest itself, inasmuch as architecture is a science as well as a fine art.

A painter designs his picture happily for himself, with no thought of constructional or economical difficulties. The shadows which fall so easily from his brush must be constructed by the architect. The latter must see in his mind the effects which he intends to produce, and must build them up, not on canvas or paper, but gradually and painfully by the hands of others. If the result fall short of his expectation, he has no power of alteration, no facilities for heightening lights or deepening shadows. He must be an artist in his design, a man of science in its execution. His science, moreover, must be useful, and not merely speculative. Architecture must only please the senses. She has to justify her very existence by usefulness. Externally she may indulge in grace of form, limited only by the exigencies of climate, construction, and by durability. Internally, she must accept the necessity of being bound to combine convenience and fitness with beauty. The arts of design and of building must not clash; but their combination should give a sense of propriety and repose. They should, in fact, illustrate the lesson which Mr. Weekes taught us so well a few nights ago with respect to sculpture, that "beauty is utility."

Architecture must then contrive and construct its artistic effects, remembering always that they must grow naturally out of the circumstances of each case, and that the greatest art conceals its modes of operation. Nothing can be worse than the obtrusion of details, obviously not required, except for display, sacrificing the higher qualities of art to a pretentious fussiness.

Without ornament, indeed, architecture as a fine art does not exist. Nevertheless, though ornament may be essential, it must be an integral part of true architecture, not a mere *appliqué*, like the beauty patches of the court ladies of Lely or Kneller.

It follows, therefore, that architecture must be studied by those who would practise it, both as a decorative art and as a useful science.

If to some, architecture may seem to be degraded from the position of a fine art by its utilitarian associations, it must not be forgotten that to this circumstance it owes much of its attractiveness to all sorts of people. It may, therefore, be well briefly to consider this phase of the subject, and to pause for a moment in order to examine the grounds of interest which architecture possesses for various minds.

We shall find that it has many charms for many votaries, and that it may be studied for various reasons, and from different points of view. Thus, for some, its interest is mainly archæological or historic; for others, scientific; and for others purely artistic. Of these, the archæological is, perhaps, the aspect which is most common; for who is there so indifferent as not to care for the greatness of the past, and the proud deeds of ancestors? The sentiment of innate patriotism alone forbids that national monuments of architecture inherited from antiquity, and handed down from age to age, should be allowed to perish; and it is, therefore, natural that we should find that a certain archæological knowledge is prized as a necessary part of the acquirements of educated men. Indeed, some sort of archæological taste may be said to be universal, for even in the most savage tribes, traditions and ancestral "customs," often, as

\* By Mr. E. M. Barry. Read at Royal Academy, London.



we know, of the most horrible nature, are practised and venerated simply for their antiquity.

This kind of archæology is, of course, far removed from art; it interests itself in objects of antiquity because of their age, and not because of their beauty or artistic value; it seeks only to satisfy those cravings for a knowledge of the past, which are as much a part of our nature as the yearning to discover the secrets of the future, which has always pervaded every people, nation, and language.

In architecture, archæologists find a fruitful field of inquiry, apart altogether from any search after beauty. Heraldry, for example, one of the most important of archæological studies, is so allied with architecture that it is difficult to study it without, at the same time, learning to appreciate architectural forms, and the various gradual modifications of them, which have been brought about at different dates. Thus, to mention only a trifling instance, the shape of the shields on tombs, will serve to mark the date of the monument; and no archæologist would confound the early twelfth-century shields of the Knights Templars in the Temple Church with those which abound in Henry VII.'s Chapel at Westminster. In the one case there is a long and simple acutely-pointed triangle; in the other, more complex curves, and a width nearly equal to the height. This, of course, is more an archæological than an architectural detail, but it may be referred to as showing the importance to the archæologist, of observing architectural forms; and such observation would naturally lead up to the more extended inquiry of the architect into those gradual changes of the shapes of columns, arches, window tracery, and the like, which mark so clearly the step-by-step advance and decline of Mediæval architecture in this country.

In nothing has our time been more remarkable than in the impetus given to archæological inquiries, and there are now few parts of the country which do not display results of the activity of those who have interested themselves in the architectural remains of past days.

This archæological taste has found its chief vent in the very remarkable revival of Mediæval church architecture which the present century has witnessed, and to which I shall have to return in my next lecture. A movement partly theological, partly archæological, has covered the country with restorations, and new works carried out in the spirit of restorations. The expenditure on our cathedrals and old parish churches has been enormous, and besides this, new Gothic churches, schools, and buildings, chiefly ecclesiastical, have arisen, as if by magic, around us.

This circumstance is the more remarkable, when we contrast with it the comparative apathy on such subjects, of France, and the continent of Europe. It is also noticeable, as having occurred at a time when free thought is pushed to its utmost limits, and when, in most things, men are little apt to regard the past with unquestioning reverence.

If we ask, however, how far the revival movement has forwarded the interests of art, the answer is not quite clear, and probably the time is hardly come, when a complete answer can be given. A great measure of success has doubtless been obtained from an archæological point of view; but it may be hoped, rather than asserted, that a greater insight has been gained into the true principles of architecture, which may lead it to progressive glories hereafter, such as those that have been chronicled in the past. To critical observers, who regard this state of things with impatience, and are ever calling for novelty and revolution, it may however be suggested that a knowledge of the past is the best education for progress in the future, and that after the period of artistic darkness which marked the commencement of the present century, it was inevitable that any earnest revival should assume an archæological complexion. It may be that this powerful force has now spent much of its power; and it is certainly difficult to see how revivalism, pure and simple, can go much further than it has already done; but the question still remains whether our art in the future is to be based on Mediæval principles, to which alone some would bid us look for the secret of success.

If this is to be the case, it follows that no other style could be cultivated. Is this a conclusion that can be accepted, with the evidence around us, of what the revival has done for us? Is it consistent with the development of the sister arts, in all their fulness in connection with architecture? May it not rather be due to an exaggeration of that archæological study of which we have been treating, pushed beyond the point at which it ceases to act as a trustworthy guide? It is the more necessary to guard against the fascinations of a purely archæological view of architecture, from the circumstance that our Mediæval revival has been from the outset very much mixed up with questions of religion and ritual. Those matters can of course be

only barely alluded to here; but it is necessary for the student to keep them in mind, if he would understand clearly the history of the powerful movement to which reference has been made.

Architecture has in all ages been intimately connected with the religions of mankind, and the great monuments which remain to us are for the most part the result of the devotional feelings of those who erected them. Thus we have the tombs and temples of Egypt and India, the temples of the Greeks, and the cathedrals of the Middle Ages. It was natural, therefore, that any great religious revival should show itself in our architecture. In addition to this ecclesiastical influence there has also arisen a keen desire to inquire, more minutely than has hitherto been usual, into daily details of past history, and historians have sought to give us careful pictures of the manners and life of olden times. No one pursuing such researches could neglect architecture, which yields the most valuable results, when studied, in connexion with the history of people and countries.

It will thus be seen that to archæologists architecture offers a very storehouse of treasures, and that, in that great study of mankind which we call history, the architect, the antiquary, and the historian work hand in hand.

We have now to consider yet another mode of viewing architecture, distinct from archæology, and having little or no reference to its artistic character.

Architecture being, as has been said, a science as well as a fine art, we cannot afford to neglect the attractions she presents to scientific men. Science being essentially progressive, we might fairly expect Architecture, in so far as she leans on Science, to be progressive also; and the complete separation of what we call engineering from all sympathy with architecture is a fact which is rather suggestive than satisfactory.

In seeking to forecast the future prospects of architecture, it is impossible, therefore, to overlook its scientific and mechanical, as distinguished from its archæological and artistic qualities. No one can doubt that in our time these characteristics of our art will be full of interest to many who, in other respects, care little about it. They will dwell upon the fact that architecture is a useful art, and has no *raison d'être* except her powers to serve the necessities of mankind. To these the science of building offers special attractions. How was it that nations on whom we are apt to look down on have carried out works the difficulties of which excite even now our wonder and admiration, in spite of our greater mechanical knowledge?—works, dating, moreover, from what may be termed the infancy of the world? Is our greater mechanical progress only to drive out beauty and enthrone utilitarianism?

The great monuments of Egypt, for example, are sufficient to raise numerous questions of the greatest interest from this point of view—Egypt whose pyramids, temples, and colossi seem to regard the works of the engineer of to-day, which are now being urged on around them, with the contempt of a mighty unchangeable monarch for an upstart of yesterday. Here indigenous architecture seems to have died out, and Western civilization is represented by the shriek of the locomotive in the silent wastes of the African desert.

Few things, again, can be more interesting and suggestive than to study the influences of climate, race, and habits, on architectural forms, and to notice how construction has given birth to beauty,—as, for example, by the introduction of the arch, the use of columns, bold projections to shelter from the rays of the sun, and so forth. These may all be termed the utilitarianism of our art, and are as interesting to the engineer as to the architect; but you will see how closely they are connected with artistic beauty, and how necessary it is for the architect to accept frankly and thoroughly the conclusion that his art must be accordant with the laws of convenience and common sense.

How far this conclusion may be carried is the problem before him. Make convenience the absolute ruler, and the result is the ugliness and barrenness of modern engineering. Depose it altogether, and art will become the laughing-stock of a world, fully alive to all the advantages, though perhaps not a little deaf to the dangers, of a highly-wrought and mechanical civilization.

Engineering may almost be said to have discovered the use of iron, as employed for construction in these later times, and in the choice of materials, the architect must, in any case, be influenced by scientific considerations. Materials, moreover, govern design. Assuming that the principles of the design of the Parthenon are based upon traditions of wooden construction, we can see that the modifications of size and form of the various parts, which have been adopted in marble, were the necessary consequence of employing a different material. This principle

of using fitting materials, and designing accordingly, was never better carried out than by the Mediæval architects of our own country.

Thus, in districts where stone was good and abundant, we find groined roofs and elaborate masonry. In places where timber was the best material available, we see the curious timber constructions, and the beautiful open roofs which distinguish the architecture of Cheshire, Lancashire, Worcestershire, and some other English counties. The brick architecture of North Germany and Belgium will also readily occur to you as an illustration of this principle, and you will see how our art, in its best days, has always recognised utility. We may be sure it must always preserve this character if it is to retain the respect of mankind.

In the aqueducts of ancient Rome we have a proof that it is not necessary that an engineering work of the most utilitarian character should be tasteless and ugly, and there can be no reason why the architect should not sympathise with the engineer, quite as thoroughly as he has been accustomed to do with the archæologist and historian.

It is, however, the merit of architecture, that while admitting to the fullest extent, the varied interests to which I have referred, it possesses yet another, the greatest and most comprehensive of all, in its artistic character. The mother of art, it welcomes under its roof all that can claim fellowship in that glorious brotherhood. Indeed, architecture cannot be said to discharge its true mission as a fine art in its fullest sense, except in alliance with its two sisters of Sculpture and Painting.

This consideration can hardly be too emphatically insisted on as regards its bearing on the style of the future, of which we hear so much nowadays. With regard to this combination, it must always be remembered that architecture, like music, is a conventional art, while painting and sculpture are imitative arts. Nature must ever be, in a greater or less degree, the teacher and judge of the latter; while architecture can be referred to no rules but its own, and to that subtle sense of beauty and fitness which is implanted in the human breast. It is this instinct, refined and cultivated by art, which forbids that we should be satisfied with the bare provision for our wants supplied by engineering, and makes us desire some grace to be added to the simple necessities of structure. To add this grace without affectation or untruthfulness is the duty of architecture as a fine art, and her work must not only display beautiful detail, but also fine proportions. It is but too common to overlook the absolute necessity of good proportion, and to rely on ornament alone. This dangerous tendency has been, perhaps, somewhat fostered by the greater attention lately given, and rightly given, by students to free-hand drawing. It is a tendency to be carefully watched, as it easily leads to abuses. Nothing can be subtracted with impunity from a perfect work of architecture; but it can better suffer a loss of its ornamental details than an injury to its proportions.

The Greeks were probably the greatest masters of proportion the world has yet seen; but the tendency of our own later time has too often been to ignore this important quality, to the loss of refinement and of true architectural grace. Perfection of proportion does not mean, however, neglect of scale, as it is sometimes erroneously supposed. We have all heard it said that St. Peter's at Rome looks smaller than it really is, in consequence of the harmony of its proportions; but this is, in my opinion, altogether an erroneous and misleading statement. If St. Peter's does not impress us with its real size, we must seek the reason elsewhere than in its good proportions, for it can be no merit in a great architectural work to efface itself. An architect is not to be thought successful, if the gross result of his employment of great opportunities is only to produce, at a vast cost, the impression that would be created by lesser efforts. The real truth about St. Peter's is, not that the proportions reduce the apparent scale, but that the harmonious effect of the proportions is marred by incongruous detail and fewness of parts, all on a gigantic scale. The enormous order and huge figures, and not its beautiful proportions, have to answer for any disappointment with St. Peter's. If the parts of its architecture had been smaller and more numerous, with its general proportions remaining as at present, St. Peter's would have appeared, as it is, one of the largest buildings in the world; and the interior more particularly, would have gained the effects of a scale without losing those of proportion which it now possesses.

The student will learn from this example that he must be satisfied with the sensation of pleasure, or dissatisfaction, which he experiences when face to face with great monuments of architecture; he must inquire the reasons of their success or failure, and seek to define the secret of the harmony or incongruity of their details and proportions.



To those who study architecture in this spirit, beauties will be revealed which are hidden from the mere utilitarian observer, and they will at the same time gain an insight into the difficulties as well as the resources of their art.

Owing to the universal interest which architecture possesses, we find that it can attract the unlearned, probably to a greater extent than the sister arts are able to do.

The grand effects produced by scale alone may often suffice to explain the impression produced on the minds of the multitude by an art which does not work in aristocratic seclusion, for the benefit of the few, but appeals openly to the many. Of course, it will only be the few who are qualified, by study and knowledge, to speak authoritatively on its inner subtleties, and its broader characteristics must always be those that will interest the un instructed observer.

To be able to see properly will ever require education, and the power to criticise is not an instinct, although the power of grumbling may be so. There can be little doubt that an art so essentially conventional as architecture can only be fully appreciated by those who have acquired an insight into its principles. Whether in respect of painting, sculpture, or architecture, whatever there may be of instinctive appreciation in individuals, the power of sympathetic criticism can only be gained by knowledge. In fact, in these cases there is room for what may be called the science of art,—science being, after all, only the concentration of the existing accurate knowledge of any given subject. Indeed, even in observing nature itself, men find the advantage of acquiring instruction, although it might have been supposed that enjoyment of her charms would be a thing of course. There cannot, however, be a doubt that this feeling has varied greatly with different races, and even with different generations of the same race. Those who know Mr. Ruskin's descriptions,—say, for example, his analysis of clouds, trees, and mountains,—will see how much increase of pleasure in the beauties of Nature herself may be gained by a scientific study of her phenomena, which forms, in effect, the art of "how to observe." Knowledge, then, is required in the critic as well as in the artist, and where it abounds, a genuine criticism is of the highest value.

It points out to the younger aspirants the way of progress, and exhibits the moderation and diffidence which accompanies true knowledge. It is, of course, free from that arrogance and bitterness which has led the present Prime Minister to refer to critics as "those who have failed in literature and art."

I have now touched lightly upon the interest excited by architecture in its three-fold aspect,—archæological, scientific, and artistic. The latter quality is that with which we have chiefly to deal in this place, but the others must not be neglected. There can surely be no reason why architectural progress should be regarded as at an end, when we consider the permanent interests which she has in her keeping. Whatever changes the future may bring forth, the art of building must ever be a necessity, and there will always exist tastes and artistic aspirations which will refuse to be satisfied with bare engineering. Architecture, then, must ever have charms for all; reserving the greatest enjoyments for those who, having learned to observe properly, can enter into the inner sanctuary. It is not necessary that she should demand a unanimity of taste, which, if possible at this stage of the world's history, would be undesirable; and she is, therefore, able to rely on that universal love of beauty, to which, after all, must be the final appeal of art.

We have seen that there should exist among civilised men an interest in architecture, which, while exerting varying degrees of attraction on different orders of minds, would yet lay claim to a catholicity denied to other developments of the artistic faculty. To the archæologist she offers the key, by which he can open the stores of knowledge of the past; with the engineer, she will co-operate in working out the destinies of the present; while to the artist, whether painter, sculptor, or architect, she gives a welcome, and displays treasures of exquisite beauty and infinite variety. Moreover, striving onwards for the future, while reverencing the past, she does not hoard her charms in any悤rlish spirit, but throws open her treasures to all the world. She connects herself naturally with the history of mankind, with the public and private life of nations, with their knowledge and progress. She has ever been the handmaid of religion,—the nursing mother of art.

Such has been architecture in the past. What is it to be in the future? Are its triumphs over? Are we to be content with the copying of barren revivals? Surely this cannot be. All sense of artistic beauty has not vanished before the steam-engine. On such of you, gentlemen, as have just entered, or are about to enter, the noble profession of architecture, these questions will press, and from you will require a solution. If they are to be answered satisfactorily, there must be no half-hearted devotion to your art.

Moreover, in these days, far more even than in those of Vitruvius, an architect should not be the mere master-mason, to which some writers would wish to reduce him. No one can afford to lightly estimate the value of general culture, and certainly not the architect, as a member of a responsible, difficult, and learned profession.

Remember the catholicity of art, which forbids bigoted intolerance and opinionated dogmatism. Study carefully for yourselves the remains of ancient masterpieces in our museums, and in the grand old buildings both abroad and at your doors, and avail yourselves fully of the facilities which are offered in this place and elsewhere for freehand and figure drawing.

As regards science, do not let it be said that architects are behind the age, but qualify yourselves to take your part in it with knowledge, enthusiasm, and integrity.

Great characters lead to grand ideas; noble thoughts produce noble deeds; and if you will hear this in mind, my first professorial lecture will not have been in vain.

(To be continued.)

### SOME PLANTS THAT ARE USEFUL.

HEATH comprises several hundred varieties scattered over different parts of the globe, but the common varieties indigenous to the British Islands have many useful properties. Three or four varieties are very much cultivated in this country, on account of the simple beauty of their flowers. In Ireland the ordinary uses of common heath are the matting of them together for besoms or brooms. The Irish also used the stalks and tops for tanning leather. Dried in an oven and powdered, heath has been used instead of oak bark, and its use attracted the attention of the Parliament towards the close of the last century. In Ireland and Scotland, we have seen it used largely for thatching the eabins of the peasants and mountaineers. The walls were made with alternate layers of heath, and black earth and straw were used for the mortar. The roots of the heath were placed in the centre on the tops externally. This binding together of straw and heath, when well done, lasts for some years, and is preferred to other coverings, such as dried potato-stalks, used also for thatch by the peasantry. In the highlands of Scotland beds are made of it, the roots being placed downwards and the tops above. The hardy mountaineers consider it more wholesome and preferable to straw or chaff which soon grows musty.

Bog Yew (*Taxus subterraneus*). This wood is to be found plentifully in Irish bogs, and some of it is so hard that it gives fire at the stroke of the hatchet. A variety of useful domestic utensils and furniture have been made from it. We have seen rolling-pins, punch-lades, chests, tables, chairs, and various ornaments made from the bog yew. The ordinary varieties of the yew, foreign and acclimatised, are extensively used for furniture-making purposes, and the root of the tree is sawn into veneers on account of its fine feathery vein, which shows well when polished. The wood is applicable to the making of mathematical instruments, comb, and pipe making, and several ornamental uses, through the skill of the turner and carver combined. The common yew often attains a very large size, and several old euhureyards throughout Great Britain furnish some good specimens. The yew formerly played no unimportant part in the history of England: before the introduction of gunpowder, it was extensively used for making bows, and when archery clubs were plentiful in the country the yew was in great demand. The timber of the yew is not only valuable, but is extremely durable. The leaves and young branches act as a narcotic acrid poison when eaten by man or any of the lower animals. It is the opinion of some that the pulp surrounding the seed itself is very poisonous. It is generally known that it is an evergreen tree, and as such, of course it has its decorative uses for festivals, &c.

Bog Oak (*Quercus subterraneus*). The or-

namental uses of Irish bog oak are numerous, and within the last quarter of a century the common uses to which it has been applied are well known as an endless variety of personal and household, ladies' and gentlemen's ornaments have been manufactured from the wood. A very good trade has been driven in this line by certain houses in Dublin and Cork, and every National or International Exhibition shows that the trade has not yet fallen off. Bog oak is extremely black, and very hard, and takes a good polish. With a good gold setting bog-oak ornaments look well, and are to a degree fashionable.—*Builder*.

### A JOKE OR TWO FROM A BUILDER'S NOTE-BOOK.\*

EVERY bricklayer has a Bob, which he hangs first and kills afterwards.

Stair-case hands make deep well holes, but there is never water in them, although everything that rises and winds about them or above them is on a spring.

It is strange that dishonest plumbers should be always taking the lead in buildings; and, though often sent upon the roofs to work, are generally found "laying" in the gutter.

Joiners and cabinet-makers are adepts at shooting; but though they fail to kill hares, they succeed admirably in running plenty of rabbits down.

A hand-saw is a bad graving-tool, but a first-rate instrument at "cuts."

Engineers are said to be civil, but they are well known to be deep-designing and undermining fellows; and, though not generally swearers, they never hesitate at a blast or two.

Surveyors are men of quantities. They measure every builder's work by their own standard; and, though they are always "taking out," they are never willing to be "taken in."

Steeple-Jacks ought to make good floaters for Bubble Companies, as they can fly their kites well; but, though they climb to a towering height, they soon dip to their proper level.

Carpenters and joiners are always tonguing their work; and, though it screeches under the operation, it has never the courage to speak out in return.

Smoky chimneys, like swindlers, refuse to honour their draughts, no matter in what way the wind is raised.

Plasterers have some peculiar tastes; they are fond of good hawks, swimming beds of mortar, and floating walls; and, though they cannot fly them selves, yet even while at their work they can run well.

Sash banging, it must be allowed, is a most bar-barous exhibition. Only think of a house-carpenter dragging a poor mouse through the groove of a pulley-box with a string tied to its tail!

A rampant handrail is eased by twisting its neck, and then horsing it to see if it rides well under the operation.

Jerry-builders' dwellings tumble down like houses of cards, because they are mostly built by the aid of a pack of knives.

Stirring sticks are always found in "strikes" jumping about like "chips" in porridge.

White-smiths are often very black-smiths, and both are said to be evil doers, for they are not only constantly on strike themselves, but they invariably employ strikers to help them in their forging operations.

Some people carry their lanterns about to see their work, but architects make their roofs carry lanterns, and are often shabby enough to use borrowed lights.

CHANNEL PASSAGE.—A "Dicey twin-ship" is now being built on the Thames by the Thames Ironworks and Shipbuilding Company under the special survey of Lloyd's, and is so far advanced in construction that she will be launched in April and ready for the service in June. The vessel is 290ft. long, with an extreme breadth of 60ft., with the small draught of water of 6ft., so that she can enter the ports on both sides of the Channel at all times of the tide. She will afford accommodation for upwards of 600 passengers, with first and second class saloons, ladies' and private cabins, and a sufficiency of closets; and over the saloons a fine promenade is arranged. Excellent refreshment-rooms are provided, and the comfort of the passengers is in every way studied, so as to insure the success of the undertaking.

\* From the *Builder*.



## KILLYLEA PARISH CHURCH.

WE sometimes wonder who writes the glowing architectural descriptions that are to be found very often in our provincial as well as our metropolitan contemporaries. The addition of a chancel, which was consecrated on Easter Sunday by the Lord Primate, has called forth the following eulogy in a local organ:—

"On first entering the church we confess we were not prepared for such a sight in a country village. Nor are we guilty of exaggeration when we assert that some of the most beautiful stained glass windows in Ireland, and some of the handsomest and most appropriate encaustic tiling we have ever seen are to be found in this country church—a church which we pronounce to be a credit, not only to Mr. Armstrong and the other inhabitants of the parish, but also to the National Church of Ireland itself. The chancel, designed in all its details, as we have been informed, by F. Butler, Esq., of Dawson-street, Dublin, and erected by Mr. Cherry, of Loughgall, is a monument of native talent and of the perfection of native workmanship; and we recommend all who take an interest in such matters not to omit paying a visit to this church, if an opportunity should present itself, and learning for themselves to what a state of perfection the house of God may be brought, even in a country village, where there are willing minds and earnest hearts."

We are unable at present to pay a visit to this interesting church; however, for the sake of architecture, we hope the work is worthy of the laudation so lavishly given.

## HOME AND FOREIGN NOTES.

*Song: The Missing Flower.* Written by R. Cahill; composed by Harman M'Hugh. (Cramer and Co.)—This is an exceedingly pretty little effort, and one which we are sure will find its way into many portfolios. We have never before heard of Mr. Cahill, but hope that, as he has made his debut, he will complete many bouquets in as pretty a manner as he has this. The music is by Mr. M'Hugh, the composer of the Grand Military Galop, and it requires no further recommendation to the public than the mention of his name.

The new premises of the Munster Banking Company were opened on the 7th inst. They are situated at the corner of Palace-street, in Dame-street. The event was, we are informed, celebrated by a dinner in the Antient Concert Rooms, Great Brunswick-street, on the same evening. We have not been favoured with the drawings, or any particulars, of this, the latest work of Mr. T. N. Deane.

A memorial window has been placed in St. Mark's Church, Armagh, in memory of its departed rector, Rev. Dr. Rutledge. The cost is stated to be £100, and the sum was subscribed by a portion of the parishioners. The work was executed in Newcastle-on-Tyne. The window is destitute of ornamentation; and it appears there is a balance in hands, which is recommended to be devoted to the procuring of encaustic tiling, to be placed under the window. Would it not have been better to have devoted it to the original object, in making it a more artistic memorial than it is?

Just as we expected, the suggestion for appointing a gardener to watch the growth of the trees in Sackville-street is not unlikely to be acted upon. The Corporation will not be long in picking out a poor relation for the office. The trees, of course, are to be watered and syringed, and no one but "a competent person" can do this. The ratepayers must subscribe. What are the several sanitary inspectors doing, or the bogus Main Drainage staff? Perhaps the authorities at Exchange-court might allow one or more of the policemen on beat in the Mall to carry a syringe instead of a bâton. The syringing could be done at night, and the "bobbies" might get a "bob" a tree for their extra labour. We will charge the Town Council nothing for this important hint.

A general meeting of the Institution of Civil Engineers of Ireland will be held in the Museum Buildings, Trinity College, on Wednesday, the 22nd inst. A discussion on a paper by Mr. J. C. Smith will take place—"On the Prevention of Railway Accidents."

A *conversazione* will be given on Tuesday, the 19th of May, by Mr. Harrison, President of the Institution of Civil Engineers, England, in the west galleries of the International Exhibition, Kensington. Similar to the last two years, models of engineering works and recent scientific inventions will be transferred to the west picture galleries from other portions of the Exhibition. These will be supplemented by

other objects, to be lent for the occasion. We remember that last year's gathering was a very brilliant one, and was worthy of the Civil Engineers.

It is reported from London that "forty Italian sculptors" are now working by relays, day and night, in order to produce the Shakespeare Fountain, to be completed according to contract and placed in Leicester-square, London, by June 15th. This is sculpture with a vengeance, apart from the noble object of Mr. Albert Grant. Why not have enlisted steam? Let the O'Connell Monument Committee take a hint, and stir up Mr. Foley—and blow up themselves at the same time.

**MUNICIPAL VAGARIES.**—The tendency on the part of municipal corporations to present addresses to royal personages upon the slightest provocation is one of old standing, and is not in these modern days to be repressed even by the coolness with which Majesty openly hands the unread address to its body-servant. Perhaps the practice reached the perfection of absurdity when the bewigged town clerks of municipalities, accompanied in state by the begowned mayors and councillors, approached his high and mighty Majesty the Shah of Persia during his recent visit, and read him out a long address, his high and mighty Majesty meanwhile taking it all as a matter of course, playing with his royal moustaches, and looking as if he perfectly understood what was being said to him, a little grave pleasantry in which the town clerk, mayor, and corporation were not backward in indulging on their own parts when, presently, the Shah addressed them in the Persian tongue. The Duke and Duchess of Edinburgh have accepted similar compliments with more graciousness than did the object of Canon Kingsley's special reverence, Queen Elizabeth. If all that history relates be true, her Majesty frequently broke forth in cries of impatience with honest corporate officials anxious to touch the hem of her garment. Passing through Coventry on one occasion the Queen was met by the mayor and corporation, who humbly begged leave to read the following loyal address:—

Ye men of Coventree  
Are very pleased to see  
Your Gracious Majesty.  
Good Lord! how fine ye bee!

To which the Queen thus sweetly replied:—

My Gracious Majesty  
Is very wroth to see  
Ye men of Coventree.  
Good Lord! what fools ye bee!

—*Sylvanus Urban in Gentleman's Magazine.*

## TENDERS.

For the erection of houses in Arthur-street, Newry, County Down, for the Most Hon. the Marquis of Downshire. Mr. William James Watson, architect:—

|                           |        |
|---------------------------|--------|
| Wheelan .. .. .           | £1,290 |
| Mahood (accepted) .. .. . | 1,250  |

For the erection of two cottages in Bridge-street, Newry, County Armagh, for James Fennell, Esq. Mr. William James Watson, architect:—

|                            |      |
|----------------------------|------|
| Mahood .. .. .             | £272 |
| Lavery .. .. .             | 262  |
| M'Shane .. .. .            | 260  |
| Wheelan (accepted) .. .. . | 260  |

For erection of houses in Barrack-street, Newry, County Armagh, for the Right Hon. Viscount Newry. Mr. Wm. James Watson, architect:—

|                            |        |
|----------------------------|--------|
| Mahood .. .. .             | £1,110 |
| Wheelan (accepted) .. .. . | 1,098  |

## TO CORRESPONDENTS.

**WILLIAM MOSSOP.**—In the article "Gandon-street," in our issue of March 15th, Mossop's residence was given as at No. 32. It appears that he resided, according to Wilson's Directory for 1813, at 144 in the street described. Whether the number is a mistake or not, we are unable to state at this moment.

**AMOR PATRIA.**—We do not discuss political subjects, although it is impossible to times, when treating of industrial matters, to avoid touching upon them incidentally.

**A STONE MASON.**—Watson Buck's work on "Oblique Bridges" is a good work. It, however, requires a little knowledge of geometry on the part of the workman to be able to work out the problems involved, and to get out templates for the series of stone courses.

**A "CHIEF."**—Get leave to look over some of the old houses in Rutland-square or Sackville-street, and you will see an amount of house joinery that will astonish you, compared with the work of houses erected of late years. From skirting to ceiling, in door and window trimmings, in hall and staircase, the style and massiveness of the work is worthy of notice.

**THE OLD THOLSEL.**—The old corporate building that stood in Skinner's-row is illustrated in "Malton's Views of Dublin," and is described by him as Gothic in style, but certainly it

partakes more of the Classic than the Gothic style. By others it is described as King James's Gothic. Apart from its mixed character, the building, according to James Gandon ('no bad judge'), "from the largeness of its component parts, it possessed a picturesque appearance, and was the first noble work in Dublin that was decorated with statues, having one of George II. and James Duke of York" (afterwards James II.). The Tholsel was erected in 1682, but disappeared during the alterations effected in its vicinity early in the present century. The statues alluded to, after the Tholsel was taken down, were removed to Christ Church Cathedral, where we believe they remain still.

**THE ROYAL HOSPITAL.**—The design of this building at Kilmahnam has been attributed to Inigo Jones, the great English architect, but on what authority we have not been able to learn. The statement may well be doubted, as Inigo Jones died, we believe, on the 21st July, 1651, thirty-two years before the commencement of the building. It is more likely to have been built after a design of Sir Christopher Wren, as has been stated in more than one volume descriptive of Dublin matters. The first stone was laid on the 29th of April, 1680, and on the site or in the vicinity was the ancient priory of the Knights Templars.

**BREAKFAST.—EPPS'S COCOA.**—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette.* Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & Co., Homoeopathic Chemists, London."

**MANUFACTURE OF COCOA.**—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—*Cassell's Household Guide.*

## NOTICE.

*It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.*

*Correspondents should send their names and addresses, not necessarily for publication.*

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*We shall be glad to receive from any of our readers notes of works in contemplation or in progress.*

**MESSRS. EARLEY AND POWELLS** beg to announce that Messrs. John Hardman and Co., of No. 1, Upper Camden-street, have resigned the business of Artists, Sculptors, Church Painters, and Metal Workers, in their favour.

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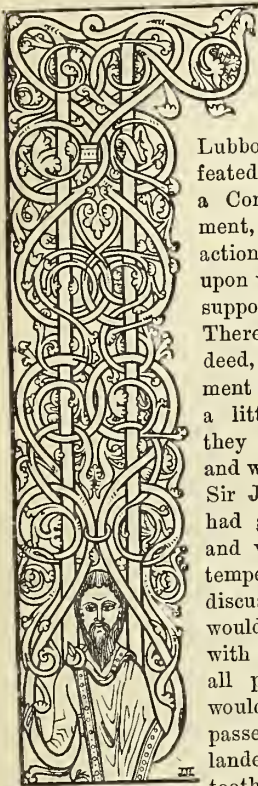
JOSEPH KELLY.



# The Irish Builder.

VOL. XVI.—No. 345.

## The Preservation of National Monuments.



It is a matter of deep regret that the judicious measure brought in by Sir John Lubbock has been defeated, and that, too, by a Conservative Government, who thus, by their action, belie the principles upon which their party is supposed to be based. There are few bills, indeed, brought into Parliament which do not need a little pruning before they are finally passed; and we have no doubt, if Sir John Lubbock's bill had got a fair hearing, and was submitted to a temperate and impartial discussion, emendations would have been made, with the concurrence of all parties, and that it would have eventually passed. The great lordly landed interest opposed it tooth and nail, and we

fear there was something more in their opposition to the measure than what appears at first sight. The bill, of course, if it passed, gave power of entry upon their estates for a watchful supervision and protection of monuments that might be in danger, from various causes, from the hands of the owners of the estates or their agents, or from outsiders. The lords of the soil, of course, look upon this as encroachment or infringement of their vested interests, but in this particular it is hard to see what vested interest the proprietor of the soil could claim in a national monument that probably existed for five or six hundred years. The fact that it existed upon his lands did not or should not give him any more right to pull the building down, than did the passing of a stream or river through his acres give him the power of defiling its waters or diverting its course. If a pathway existed from time immemorial through a man's lands, the public have on that path a right of way which the law recognises.

In the matter of National Monuments of a particular kind, whose importance as historic and architectural memorials and examples has so often been pointed out, we consider it little less than a sacrilege to destroy or deface them. In rare instances, indeed, can our national monuments scattered over the country be considered as incumbrances upon the land. Looking upon the matter in the most worldly point of view, the displacement of any of them by our wealthy farmers or lordly proprietors would afford little positive gain, considered in the light of a displacement only. We know thoroughly well that the object of the removal of many grand old ruins was not for the purpose of adding

to the cultivated land, but of converting the stones into building material for both dwellings and outhouses. It is for such barbaric or semi-savage acts as these that laws are needed. Falling short of entire destruction, acts of defacement and spoliation have taken place at the instance of landowners where beautiful ecclesiastical edifices have been rifled of all their ornamental and sculptural dressings, to deck the libraries or halls of not only the resident but the absentee landlord. An ignorant or illiterate farmer might be excused sometimes in past days for "stubbing up" historic and pre-historic relics, but there can be no excuse for the educated gentleman. We question very much, indeed, if a man can be accounted educated who is guilty of destroying the monuments of the nation.

We do not preach party politics in this journal, but we cannot resist saying that we think the present Government greatly remiss in their treatment of Sir John Lubbock's measure. We have little doubt but, if the Liberal party were in power, the bill for the preservation of our National Monuments would have become law.

Here in Ireland, for many years some noble efforts have been made by native institutions to conserve the monuments of the past. The Royal Irish Academy and the Royal Historical and Archæological Society of Ireland have often directed attention to the condition of our ancient buildings. The latter society has been unceasing in its endeavours since its formation, and many a fine old ecclesiastical shrine has by its efforts been snatched from destruction—destruction not only at the hands of time, but of brutal vandalism. Conservative lords and landlords, too, have been assistants in the good work begun and continued by the society. Some scores of our fine old monuments since the close of the last century have completely disappeared, and many more have gone into such a state of ruin as to preclude all hope of their restoration. Wanton and malicious destruction, in some cases, has been the cause; in others, time and the elements have been the destroyers. Had a stringent act been in force, even half a century ago, several valuable memorials would have been saved. Besides a preservative act, we need an educational measure in favour of our national monuments, whereby the youth of these countries will be instructed in their early studies in the duties which they owe to their country as guardians of her honour. Thus will be laid the foundation of a public opinion which will hereafter aid the law in upholding what is a public right and duty. The indifference which has been manifested for years in respect to the preservation of national monuments, too plainly demonstrates the decadence of that public spirit, the loss of which this country, and indeed every other country, would have grave reason to deplore. Where no public spirit exists there will be little veneration for, and less efforts will be observable to protect what adds and has always contributed to show our moral grandeur and strength.

In conserving our National Monuments, the feuds of the past should be forgotten. No matter to what uses these grand old buildings might have been devoted—whether they echoed to the ceremonial of pagan or Christian worship, their right to be preserved is unquestionable. The pre-historic or historic, both have claims, but those of our early

Christian fathers call aloud for protection and preservation. Of Roman and Saxon, of Celtic, Norman, and Goth, we have glorious vestiges. Of each power we have examples worthy of imitation in one school of architecture or the other, if not as a whole, at least in one harmonious detail or characteristic peculiar to each. By our indebtedness to the past, and through the duty we owe to posterity, we are called upon as a civilised people to hand down the heirlooms we have inherited and that have enriched our national history, unimpaired as far as possible, to our children's children. Failing in doing this, through supineness or lack of public spirit, we fail in one great essential of being a noble people. Our laws and institutions will have to be interpreted by our posterity, and by the light they afford our character will be read.

It behoves the legislature of the country to retrace its steps and renew its action by passing a measure that will make it be remembered for all time as the guardian and conservator of the National Monuments of the British Islands.

## THE A-MENDED MAIN DRAINAGE SCHEME.

THE pillar-towers of Ireland in number still exist, and some are likely to exist for centuries to come, although no man knoweth the name of their builder, except indeed the great Goban Saor himself be their architect.

Whether the main drainage works of Dublin will outlive the names of their twin engineers, is, to say the least, a very problematical question, seeing that the works have been hardly begun yet, though the scheme has been before the public for many years, and that the plans have been thrice amended, and as often, or more often reported upon. We do not expect to live to see the completion of these works, neither do we covet a man's life which would be so far extended, possibly reaching to that period when the Greek kalends occur.

According to the report of Messrs. Bazalgette and Neville upon the late tenders, alterations have been effected in the mode of construction and in the materials to be used in all the work belonging to Nos. 1, 2, and 3 contracts. Rubble masonry is substituted in place of brick and Portland cement concrete; rough masonry is substituted in places for iron; and even timber is pressed into service for a trough sewer in lieu of three rows of iron pipes. A floating timber roof gives way to a fixed corrugated iron roof; outlets and inlets, we are told, are simplified, and

Rubble, rubble,  
Toil and trouble

is everywhere exemplified in No. 1 contract. In Nos. 2 and 3, "Engineering Made Easy" is also observable; everything is beautifully simplified; nasty and costly iron, and brick, and Portland cement concrete so highly extolled in the original plan, are got rid of. The Sackville-street iron sewers, and the high-level sewer reaching from near Abbey-street to the pumping-station, gives way to a single line of sewer in which rubble is also substituted instead of brick and Portland cement concrete. And so with No. 3 contract as with Nos. 1 and 2. The iron sewer disappears from Westmoreland-street, College-green, and Grafton-street, and rubble masonry crops up again.



We are informed that a considerable saving is effected by the new plans in connection with the diversion of the river Poddle, but in what manner it does not appear. It is one thing to say that every detail has been gone over, and by the substitution of one material for another, saving has been effected; but a more exact statement of particulars would be desirable in respect to a work which is likely to be the most costly, as it is certain to be the most unsatisfactory (if carried out as at present designed) that has ever taken place in this country.

In No. 1 contract, Messrs. Nowell and Robson's is the lowest tender, at £205,494; and for Nos. 2 and 3 contract, Messrs. Smith, Finlayson, and Co., at £118,000 and £95,000. To these three sums the engineers add £25,000 for steam-engines, pumps and machinery at pumping-station, making a total of £443,494, which, they say, is within the sum estimated for last year, which is put down at £450,000. The sum of £25,000, the engineers aver, was included in their estimate of £450,000; but this sum, which it is supposed will cover the cost of the erection of steam-engines, pumps, and machinery at the pumping-station, is not included in the contractors' tenders.

According to the report, it is stated, "this is the only work we are aware of not covered by the plans and specifications which have been issued for public contract."

In connection with No. 2 contract, we forgot to notice that the engineers have prepared a new design for the buildings at the pumping-station, the chimney, and other offices, and that they state they have done away with "all costly Portland stone work, and brickwork, as far as practicable, and substituting ornamental buildings, to be constructed chiefly of rubble limestone masonry." First there was to be costly Portland stone-work (ornamental, of course), with the city arms, &c., and the names of the engineers, date of erection, or perhaps an Aberdeen polished granite tablet with gold lettering, with the names of the Lord Mayor and Town Council for the time being, with the other worthies aforesaid.

The noble block of buildings at the pumping station will no doubt be a *chef-d'œuvre* of art and rubble masonry, considering that "every country labourer who has ever handled a trowel can build a rubble wall." We did not know until we read the report of Messrs. Bazalgette and Neville that the materials that form rubble masonry are to be found everywhere, and picked up for next to nothing in all parts of Ireland. The cost of getting and the cost of carriage are, we suppose, looked upon by our engineers as mere bagatelle. Certainly this is a free-and-easy method of estimating, and we do not wonder at the superlative success of the previous un-a-mended schemes brought forward by the engineers of the Dublin Main Drainage works.

The Corporation are advised not to bind themselves to proceed with the entire works, but with certain parts of them. Considering the financial state of the City chest, and the burden of taxation that already lies upon Dublin through the cost of her waterworks and through other mortgages and loans, the advice was not needed. Perhaps it was prudent, however, upon the part of the engineers to recommend a reservation, to protect the Corporation from any obligations to provide money to pay for supplemental works,

which would be probably required if the Corporation were allowed to proceed with any amount of work entailing an expenditure greater than that provided by the borrowing powers of the Corporation.

The portions of the work recommended to be proceeded with first are those included in No. 1 contract, connected with the pumping station; portions of the low-level system of sewers, extending from the pumping station to the syphons under the Liffey west of Carlisle Bridge; the syphons under the Liffey, and the sewers from them to the boundary of the Pembroke Township. The latter works are necessary for carrying off the sewage and drainage of the low districts which they are intended to drain, and which are liable to periodical flooding. These instalments are considered by the engineers as capable of being executed within the amount which the Corporation have obtained powers to borrow.

Looking back upon the originally-projected scheme, we are struck with amazement at the cool assurance of the engineers. Our borough engineer at least might, from his experience of Dublin, have known that the scheme was impossible of execution; but perhaps he is not altogether to blame, as he is or has been forced by certain influences to give a scope to his work to suit the anticipated pleasure and profit of other parties. It is well known for years that Corporate works in Dublin are contrived by hook and by crook to assume a magnitude quite out of keeping with the necessities of the case. The greater the job, the greater will be the benefit to all concerned, except the ratepayer.

This city will, we fear, have to wait for many years before her health is improved by her main drainage, for, apart from the constructional defects of the present scheme, the scheme itself is bad in its sanitary aspects. It is not, however, too late to effect an improvement, though we fear much it will only come for Dublin when it has been dearly paid for.

#### A LIFFEY SUBWAY.

As we have had a Thames subway, and as another is about being projected between North and South Woolwich, it is worth consideration whether we could not have a Liffey subway at some determined-upon points on the South and North Walls. Projected with a view to answer the traffic to and from Westland-row terminus, the undertaking would be likely to be favourably received. The cost of the undertaking would not be very heavy, as the utilisation of a tubular iron casting would obviate the ordinary difficulties connected with tunnelling. It is needless to go into particulars. The model of the intended subway at Woolwich, lighted up with gas, was exhibited a few days ago in London. The estimated cost was £60,000; but the Liffey, at the North Wall, is not more than half the breadth of the Thames, at Woolwich. In this statement, however, we are liable to correction.

The idea of a Woolwich subway originated from the fact of nine workmen being drowned in passing over the river.

Mr. W. T. Henley, proprietor of the telegraph works, North Woolwich, who employs 2,000 hands, occupied the chair of the meeting called to promote the new subway.

One or more subways under the Liffey,

between the Custom House and the end of the North Wall would, we are of opinion, be a great acquisition to workmen and business people generally. We throw out the hint, hoping to see it ventilated by those who are opposed or are in favour of such a feasible undertaking.

#### THE METROPOLITAN BUILDINGS AND MANAGEMENT BILL.

THE district surveyors, having considered the new Metropolitan Buildings and Management Bill, have issued their report. They hold that it is doubtful whether the proposed centralisation will not tend to impede, rather than facilitate, the conduct of business. Remarking that the bill consists really of two parts—one regulating buildings and the other the means of local management—they recommend that the two subjects should be dealt with in two separate measures. Criticising the proposed Act in detail, they are of opinion that it should be deferred for the present, and that a short bill for the appointment of the proposed special magistrate and assessors should be introduced in its place. Having looked through the bill we consider it a most unwise and ill-digested one. The British Institute of Architects had already reported upon the measure, and pointed out its shortcomings and unpractical nature. In the conclusion of their report they say:—

"We are not aware that the Metropolitan Board has consulted the district surveyors, or required their advice and opinion in drawing up this Bill. In fact, we should think the contrary, for there is not a page relating to structural matters which does not require many corrections, which the experience of those practical officers would have suggested. We think there is much confusion in the requirements of this Bill as (*exempli gratia*) to party structures and the rights of building owners and adjoining owners, contained in one separate part of the existing Act of 1855, but here is this Bill confusedly mixed up with other matter.

"In fact we are of opinion that if, instead of an entirely new Bill, the old Act had been retained, being so well practically understood by district surveyors and builders and proved by experience, and had been amended as the working of so many years would suggest, the result would have been more satisfactory, both to the public and all engaged in carrying it out. At the same time we consider the appointment of a magistrate with assessors specially for the Act, section 86, to be very judicious, as there will be a greater chance of correct decisions on matters most frequently of a purely technical nature; and a greater uniformity in the interpretation of the Act will result."

Since the above was in type, the Bill has been read a second time and referred to a select committee of the House. Colonel Hogg, the bringer-in of the measure, has consented to the elimination of some of the objectionable clauses, and in committee we have little doubt that others will be eliminated, and the interests of architects and district surveyors secured and protected. The British Institute of Architects and District Surveyors are entitled to commendation in leading to the improvement of the Bill.

#### MESSRS. BARRY AND STREET—THE NEW LAW-COURTS, LONDON.

In a letter to a London contemporary, Mr. Edward Barry, R.A., very fairly, we think, states the injustice he has suffered in connection with the designs for the New Courts of Justice about to be commenced, but which ought to have been finished, considering the length of time their erection has been pending.

We have upon a former occasion expressed our views upon the subject, and in the interim



We have not been convinced, by any statements which have been published, that we have taken an unfair view of the matter at issue. We still believe that Mr. Barry has been very shabbily treated by the Government, and that he has adduced cogent proofs enough to convince any unprejudiced person, save, perhaps, jealous professional brethren. We append a short leader from the *Daily Telegraph* of London, not that it proves much, but because that paper has a very large circulation, and for good or ill its remarks have a certain influence and weight:—

“Mr. Edward Barry, R.A., conceives himself and with some show of reason, to have been very shabbily treated in the matter of the New Law Courts, which ought to have been finished at least ten years ago, and which, as things stand, cannot even be said to be in the first stage of construction. The gravamen of the charge brought by the accomplished architect to whom the metropolis owes the Royal Italian Opera House, the Charing Cross Hotel, and that unique Gothic gem the resuscitated Charing Cross itself, has been stated in a letter to a contemporary. By this we are reminded that the judges appointed to award the prizes for the Courts of Justice designs decided that Mr. Edward Barry's drawing was the best in point of plan, and that of Mr. Street the best as regarded the ‘elevation,’ the last being an opinion in which a very large section of the public have subsequently declined to concur. The judges, however, advised the appointment of Messrs. Barry and Street as joint architects, placing Mr. Barry's name first in the recommendation. These two gentlemen agreed to work together; but in process of time a change came over the official mind—which, in the matter of the still invisible Palace of Justice, has never ceased to be of a kaleidoscopic character—and Mr. Street was designated for the post of sole architect, to the prejudice of Mr. Barry, without the knowledge or consent of that gentleman, and against the counsel of the judges, the finality of whose decision had been guaranteed to the competitors by a Treasury minute. When Lord Henry Lennox, who bears no responsibility in this matter, since he has been only a short time in office, was questioned on the subject in the Commons on Friday last, the assiduous First Commissioner replied that Mr. Barry had certainly gained a prize in the Palace of Justice competition; but that as he already had the reconstruction of the National Gallery on his hands, it was thought best that the erection of the Law Courts should be entrusted exclusively to Mr. Street. This would have been equivalent to a denial of permission to Sir Christopher Wren to build St. Paul's, because he had already the task of constructing St. Stephen's, Walbrook, ‘on his hands;’ but, as we have said, the charge of illogical inconsistency does not lie at the official door of the new Commissioner of Works. “The collaboration of Messrs. Barry and Street would have been in the highest degree beneficial to the public architecturally. Mr. Street is a tasteful, albeit a somewhat eccentric Gothic architect; Mr. Edward Barry, in addition to his proficiency in Gothic designs, is a master, both in generals and details, of the magnificent Palladian style—in which, if Lord Palmerston had had his way, the Law Courts would have been built—and of the structural science practised by the mediæval builders of the Flemish *hôtels de ville*, subsequently ennobled at Fontainebleau, and ultimately simplified yet made more grandiose by Mansard. The Gothic elevation would have been preserved had the two architects worked together as did the *Adelphoi* Adams; but Mr. Barry's consummate experience in the planning of palatial Italian and Renaissance edifices would have been of priceless service in arranging the interior of that pile which we suppose will positively be begun and finished some day, although whether that time is to be the Greek Kalends of the ‘Week of the Three Thursdays’ no deponent can say.”

It is to be regretted that the joint services of both architects were not secured and continued until the Courts of Justice were completed. There is no doubt that a more harmonious building would have been the result, and the present generation, as well as the future, would have reason to rejoice at the result.

The Law Courts, as a piece of architecture, is expected to reflect the highest architectural taste of our times. It is not built to suit the requirements of a passing period of time, but the necessities of an expanding future. As a work of art, it should foreshadow as well as represent, and be enduring as grand; arrangement not being sacrificed to orna-

ment, nor ornament to arrangement, but both combined in one proportionate and harmonious whole.

#### FATAL ACCIDENT BY THE FALLING OF AN IRON ROOF.

THE public are already in possession of the particulars of the accident by which a man has lost his life and two others received serious injury by the falling of the iron roof of one of the retort-houses at the Alliance and Consumers' Gas Company's Works. The following was the verdict of the jury:—

“We find that John Robertson died on Thursday, the 23rd of April, from several fractures and other injuries received by him on the same day, through the falling of the roof of the retort-house of the Alliance and Consumers' Gas Company at Brunswick-street. And we find that there was not proper precaution taken on the part of the company for the carrying out of the repairs necessary for said building, there not having been proper consultation before the work was commenced.”

With the above verdict we entirely concur; for from the evidence adduced it too plainly appeared that proper caution was not exhibited. It is too much the practice of public firms and companies, in their greed to make large profits or to swell dividends, to employ cheap labour. Where a “handy man” can be procured, a skilled operative is not thought of; and as for calling in an architect, such a proceeding in the eyes of “cheap Jack” would be arrant treason.

#### THE EDUCATION OF THE WORKMAN.

THE paper read at the Architectural Association of Ireland by Mr. Brien on “Technical Education,” and given in our present issue, contains some very good suggestions which we hope the association will see its way to adopt at no distant date. Our building operatives in this country, although they may favourably compare to a great extent with the operatives of the sister kingdom, yet, from the lack of the facilities within the reach of their fellow workmen across the Channel, technical knowledge has as yet made but a small progress in their midst. The skill of our native workmen is a skill more begot of aptness, sagacity, and experience than that acquired and improved by technical instruction and study, in conjunction with the pursuit of their calling. Greater facilities, we must admit, now exist in our city than a few years since; and, as far as the artisans of our city are concerned, we regret they do not make better use of their time and opportunities. We have often before dealt with the uses and scope of Technical Education, and its value not alone to the workman himself, but to the architect and builder. A better educated and a more skilled and artistic class of operatives tend to a better class of buildings, and an improved taste both in architecture as a whole, or handicraft as contradistinguished by itself. Architects and builders might and could render a little more assistance to workmen in many ways, particularly to the youth. We do not go in for forcing people to acquire a technical knowledge, though we would certainly go in for compulsory measures in the matter of elementary instruction. What we desire to see is greater facilities given, backed by judicious forms of encouragement likely to foster and develop talent and skill. Mr. Brien's suggestions are good as far as they go, but what is needed is substantial embodiment of them, whereby theory and practice will be manifested in the improvement of the workman and his workmanship.

#### THE ALLEGED FRAUDS ON GAS CONSUMERS.

WE print underneath a letter which was addressed to the Right Hon. the Lord Mayor on the 20th ult., and of the receipt of which (although registered) by his lordship the writer informs us, as we are going to press, he has not had any acknowledgment. It might reasonably have been expected that our worthy Chief Magistrate would have at once signified his desire to have such a serious matter inquired into. The wealthy trader, as well as the humblest consumer in the city, is deeply concerned if the statement so persistently and frequently put forward by Mr. Kirby be true in fact—it has never been controverted.

Since the commencement of the agitation *in re* the Gas Bills, Mr. Kirby has contributed his share of individual exertion in warning the Corporation and the citizens of the disastrous results that would be likely to arise if the powers sought thereby were conferred. He has been zealous in keeping his views upon the subject before the public at times when all interest therein appeared to have died out:—

To the Right Hon. Maurice Brooks, M.P., Lord Mayor of the City of Dublin.

MY LORD MAYOR,—On the 1st January, 1873, I addressed a letter to the Town Clerk, calling the attention of the Lord Mayor and the members of the Corporation to the existence of erroneous gas-meters within his lordship's jurisdiction and throughout the gas district.

In that letter (published on the 8th of same month) I accused those gas measures of being incorrect to the extent of one-seventh of the whole gas rental, about £30,000 per annum, and on the 15th of that month, a letter written by me was published, repeating that impeachment, and also suggesting that the common air was mixed with the gas and forced through the meters, causing them to indicate in a most erratic manner an unwarrantable consumption of gas. On various occasions, as circumstances authorised me, down to the present time, I have repeated through the columns of our public journals the same impeachment, and invited contradiction to it, but none has ever been attempted, private or public, that I could hear of.

During the past week, I have been canvassing the signatures of gas consumers to a petition containing objections to the Bill promoted by the Alliance and Dublin Consumers' Gas Company, calling the attention of the legislature to the necessity of amending the same by the appointment of an officer, independent of any local body, to test the quality of the gas supplied, and the accuracy of the meters used in the measurement of it; and I feel compelled to inform your lordship that, no matter how deficient of information on the subject matter of the petition very many of the gas consumers were, on reading paragraphs 3 and 4 of that petition, they promptly took their own or my pen, signed the petition, heartily endorsing the necessity of the change petitioned for, bitterly complaining of the surcharges inflicted on them for gas they denied the consumption or leakage of, and also, of the insolent contemptuous treatment they received when making their complaints to the Gas Company's officials.

Pending the late appointment by the Corporation of an officer to test the quality of the gas and the accuracy of the gas meters, I wrote to your lordship's predecessor on the subject, and that letter\* was published on the 26th November, 1873. The courtesy of acknowledging the receipt of that letter was not vouchsafed me, although I wrote again asking for it. I now respectfully direct your lordship's attention to the necessity of the change petitioned for, and I will be most happy to wait on your lordship should you require me to do so, and give you any further information on the subject you may require to the extent of my ability and knowledge of the facts.

I regret having to inform your lordship that very few of the ratepayers whose signatures I solicited were of opinion that the Corporation ought to have the control and management of the gas works; and that my past experience compels me to ensure the delivery of this letter to your lordship, by registering it.—I have the honor to be, my Lord Mayor, your lordship's obedient servant,

JAMES KIRBY.

41 Cuffe-street, Dublin,  
20th April, 1874.

\* See our number of 1st December, 1873.



## PUBLIC RIGHTS AND PUBLIC NUISANCES.

## FOURTH ARTICLE.

ALTHOUGH we recognise the principle, and would like to see it recognised by all, that prevention is better than cure, and that total eradication is better than disinfection, yet there are many cases where disinfection may be resorted to with safety and profit. In cases of fever and other contagious diseases we would rather see the clothing of the poor destroyed where not valuable, and new supplied. The epidemic, however, may be at times so general and widely spread as to prevent the supply of new clothes, and disinfection must be resorted to.

The law in respect to disinfection stands thus:—The sanitary authority, upon the certificate of any legally qualified medical practitioner, may order any house or any article therein to be cleansed and disinfected, in order to prevent or check infection or contagious disease; and, if the order is not obeyed, may do the work themselves, charge the expenses on the person in default, and recover penalties of not less than one shilling, and not exceeding ten shillings, for every day in which there is default. Where the persons are too poor to pay, the sanitary authority is obliged to do what is necessary for the safety of those in the house or vicinity. The sanitary authority is also empowered to provide proper places for disinfecting clothes and bedding, and disinfecting them free of any charge; and also they are to provide carriages to convey infected persons either to hospitals or to their own houses, and pay the expenses incurred in such conveyance.

Now we have often in this journal pointed out the want of proper conveyances, and have long since advocated the providing of ambulances for the fevered poor. The infected have often been carried to hospitals through this city in common cabs, which were at liberty to go on their respective stands after they had delivered their fare. Young children and healthy adults were immediately after carried in these cabs, and, as was to be expected, were stricken down. Even at this moment the conveyances for the infected to our hospitals are totally inadequate, and reflect a scandal on the local administration. The outbreak of a serious epidemic would find the Public Health Committee of this city wholly unprepared to grapple with the visitation.

In respect to the law on public conveyances—If any person suffering from any dangerous infectious disease enter any public conveyance without previously notifying to the driver that he is so suffering, he will be liable to a penalty of £5, and all the costs to which the owner may be put in consequence. No owner or driver is obliged to carry a person so suffering until they shall have paid a sum necessary to cover any losses or expenses to which they may be put in consequence of such conveyance. If any person has been carried in any public conveyance, it must be at once disinfected, or the owner or driver may be fined any sum not exceeding £5.

Connected with the Port of Dublin there has long been a great want of a floating hospital accommodation; this deficiency has to some extent lately been supplied. Long since we advocated floating hospitals; but, in connection with the arrival of sailing ships and steamers, we must say very little surveillance is yet exercised. Persons suffering under any infectious or contagious diseases should be at once removed to an hospital, and it is the duty of the local sanitary authority to provide one. When the sick person is without proper lodging or accommodation, or lodged in a room occupied by more than one family, or being aboard any ship or vessel—in these cases the sanitary authority should provide hospitals either separately or in conjunction with other sanitary boards, or they can enter into arrangements with the managers of public hospitals for the reception of any such persons within a sanitary district by making an annual payment or otherwise.

In respect to exposure in the public streets—Any person who wilfully exposes himself in any street, public place, or public conveyance, while labouring under any infectious disease; or any person exposing, or selling, or transmitting any infected clothes or bedding, may be fined £5. This does not apply to clothes transmitted for the purpose of disinfection. Parents or guardians are held accountable also for permitting children to go abroad while still labouring under the effects of contagious or infectious diseases.

Again, if any inn-keeper or other person knowingly lets any room or any part of a house in which there has been any person suffering from any infectious disease, without having first thoroughly disinfected the room, &c., to the satisfaction of a qualified medical practitioner, he will be liable to a penalty not exceeding £20. Similar powers are given by the Sanitary Act of 1866, by which the sanitary authority is to provide places for the reception of dead bodies, to prevent them acting injuriously on the health of other inmates of the house in which the sick person has died, and where, from limited accommodation, it is desirable the dead should not remain among the living. The sanitary authority is also empowered to provide places where *post-mortem* examinations may be made when required.

In connection with the native custom of waking the dead, terrible evils continue; and it would be well if the law would put some restriction upon the practice. The practice is neither moral nor healthy, even where the deceased has not died of an infectious disease. The keeping, however, of a person for several days that has died of a contagious disease in the midst of the living, out of feelings of respect, is nothing less than a piece of perfect madness that should not be permitted. No feelings of delicacy should be allowed to interfere with the performance of a public duty in the interest of the living and the very family of the deceased, who may be the next to succumb. In a word, "wakes" should at once and for all be abolished.

Besides the laws in respect to the removal of nuisances which are permanently in operation, there are other powers which can be put in force by the Local Government Board in sections where any part of the country is threatened with or is afflicted by any formidable epidemic, endemic, or contagious disease—such as relate to the speedy interment of the dead, house-to-house visitation, the dispensing of medicines, or in general affording medical aid to persons exposed to any of the influences mentioned. When the public safety requires the carrying out of any measures, the local sanitary authority may appoint and pay medical or other officers, and persons to carry out the directions or instructions issued by the Local Government Board; and any persons who wilfully violate or neglect these may be prosecuted. Persons obstructing any one acting for these purposes under the direction of the sanitary authority can be fined £5. These fines, when levied, are to be appropriated to the payment of the expenses incurred in carrying out the sanitary regulations made by the Local Government Board. If the sanitary authority fails in its duty, the ratepayers may get up a requisition, and the central Board, if it chooses, can perform the necessary sanitary work, and recover the costs from the funds of the local authority.

Should any poor-law medical officer or other medical practitioner perform any of the services required by those regulations on board any ship in port, he is entitled to payment for such services from the captain of the ship, on behalf of the owners. In case there should arise a dispute as to the amount to be paid, a justice may decide what is reasonably to be paid, up to £20, and a summary remedy is given to the medical attendant to recover up to that amount for services rendered.

It will be seen from what is stated above and in former articles that the existing sanitary acts provide for all ordinary and some extraordinary cases, and, if vigilance is exer-

cised by the citizens and ratepayers, few cases of a flagrant nature can escape detection and consequent penalty. Our sanitary statutes, however, are too many and perplexing, and what is needed is a codification by which all important matters relating to the public health will be met without difficulty. Sanitary powers are scattered through so many acts, one sometimes is made to confuse the other, from lack of a clear, intelligible definition. Justices' justice is not rarely no justice at all, and offenders often escape when their guilt is apparent.

The administration of sanitary duties needs practical and well-informed men in the persons of surveyors and inspectors of nuisances. Medical officers of health are expected to report upon matters of which they have no practical knowledge—on matters which belong to the functions of a sanitary engineer. We are, however, confident that time will work the necessary change, but unfortunately it will be at the cost of much suffering, injury to the public health, and the sacrifice of hundreds of human lives.

## TECHNICAL EDUCATION.\*

THE question of Technical Education is receiving considerable attention on all sides—within the ranks of every profession and trade—just at the present moment. We are considering not only how the general standard of education may be raised, but also how study can be best directed into channels likely to lead the student more rapidly and surely towards the desired goal.

I have been anticipated in much that I proposed to say to you this evening by the very practical paper recently read before us by one of our honorary secretaries, Mr. Robinson; still much remains to be said on so fruitful and important a theme. I must try to make my remarks supplementary to, rather than a repetition of, what he has so thoughtfully suggested to us.

There is some difference of opinion as to the period at which the special training termed "technical" should commence. It is urged that education should be general up to a certain point, and that, when bias or a positive choice appears, the general should be converted into the *special*. I think it is forgotten how much this selection is facilitated by presenting—at a comparatively early period—such a practical aspect of general study as shall be most readily and naturally merged into the more purely technical. It has been forcibly pointed out how easily the position of state or city is remembered when physical geography either precedes or accompanies ordinary geographical lessons; and how even drawing and music are more thoroughly acquired when they also are approached on what may be termed their scientific side. It is thus with every other department of knowledge; each has a more permanent hold on the memory of the student when presented, as I have said, in this practical aspect—even the difficulty of acquirement is in the present reduced. Much of the painful process of learning by rote is rendered unnecessary, and each additional step taken is more surely an advance in the direction of the last when connection and interdependence become apparent to the pupil.

To the students and the professors of architecture these considerations should come with considerable force. Their success in life very largely depends not only on the kind and degree of knowledge which they themselves may possess; but—what is not so readily apprehended—on the extent to which this knowledge is shared in or appreciated by the workmen who carry out their designs, and by the public who are their clients or their critics. In every profession we are gradually ceasing to desire that exclusiveness of information which was at one time so jealously maintained: and hence it is that there never was an age in which the learner should be

\* By Mr. C. H. Brien, A.R.I.A.I. Read at meeting of the Architectural Association of Ireland, April 23rd, 1874.



so willing to become the teacher in his turn; being assured that he is, in this way, making his knowledge of most value to himself and of most benefit to the community at large. I believe that it is a recognition of this fact more than the effect of mere fashion, vanity, or laziness, which makes "popular lectures," as they are called, so general and potent in connection with our Educational schemes. Compressed within an hour the reading and research of one man is made available for the instruction of large audiences, who thus learn much which they could not be induced to read; or are gradually induced to read on subjects which, but for such means, they would have failed to see the necessity or attraction of. As means to an end, they cannot be over-rated; should they, unfortunately, become the end itself—should we fail to induce further inquiry, they are surely even then not to be despised.

In this society we aim for the most part at mutual improvement. We have not yet been able to receive the full aid which I think we might hope for from the older members of the profession. We have been unable to attempt anything towards the education of the workman; and but little towards the almost equally important cultivation of the public taste, towards placing the client in a position to appreciate with more intelligence the architect's labours. Without for a moment relaxing our efforts in the direction of that personal improvement which we have been so successfully pursuing—without yielding up any of that independence of action which has made the association what it has become during the short time it has been in existence, I cannot help thinking that the aid of the older members of the profession—each in his own speciality, (for the exigencies of practice will bring distinctive experiences) may be advantageously secured, and the intelligent workman, and the general public, included in a portion of our labours. How this may be accomplished I will endeavour to explain for your discussion, with a view to the engagements of our next session.

It must be evident to most of us who have ventured to communicate our knowledge to others, that the interest of an audience is secured and increased to the extent to which the information sought to be communicated is brought down to the level of present possible appreciation—when we do not over estimate the average intelligence on the point discussed, of a necessarily mixed assembly. It is difficult to make attractive—to add much in the direction of novelty when the discourse is delivered in the presence of professional peers. It is quite a different matter to help the student, to promote intelligence in the workman, or to instruct the general public. While the professors of natural science, for instance, have of late years in this direction done so much, the cost in time and money in the preparation of diagrams has no doubt prevented the professors of architecture and of the fine arts from aiding to the same extent in the work of raising the general level of knowledge in these subjects and—confining our view to architecture alone—I think I am justified in saying that no other subject, even amongst those who undertake the duty of critics in the press, is more lamentably misapprehended or its discussion entered on with a so frail base of information. It is said, I know, that an appreciation of art is intuitive, but I fear that the careful observer in our picture galleries and art collections will not confirm this view of popular decisions.

We have, as I have said, three classes which the business of our sessions may help to instruct, none of whom are—as respects our art—otherwise suitably provided for.

1st—The architectural student—as to whom my suggestions would only introduce some new elements.

2nd—The artisan—amongst whom there is gradually developing a race of more thoughtful men—as yet, I concede, all too few.

3rd—The general public—of both sexes—to whom architectural art and its history is almost unknown, but with whom it is alike

our interest and our duty to make its claims on popular education acknowledged.

I do not propose to disturb our annual programme in its principal features: I would merely add to it in some directions to our mutual advantage, making the contributions of the senior members easier, making the aid of the junior valuable to himself, and of permanent benefit to the association.

I would suggest that an annual series of lectures or demonstrations by the senior members of the profession and scientific and artistic men of position be inaugurated, under the auspices of the association, to be open (with or without fee, as may be determined on) to the general public, including the senior pupils at our great schools and such thoughtful workmen as we may from time to time meet with, or who may be recommended by their masters, or who may be students of a school of design or anxious to compete in an examination to be held at the close of the series. The prizes I have no doubt, would be willingly placed at our disposal by contributions from masters in the trades involved. The necessary diagrams to be prepared for the lectures by the junior members of our classes, and to remain the property of the association. These lectures, like those of the Department of Science and Art, should occupy only an hour in delivery, say from 8 till 9, and could be followed, if thought necessary, when the general public had dispersed, by further individual explanation to the students—the whole proceeding to be over before 10 o'clock. Such subjects as: The history of architectural forms, and their geographical distribution; decoration in sculpture, mosaic, and glass-painting—in fittings and furniture; sanitary and other arrangements for comfort, convenience or necessity in hospitals, schools, churches, dwellings for poor and rich, could not fail to attract the general public, who are constantly concerned with these very matters.

Such questions as the history and scientific aspects of their art in carpentry, iron work, carving, brickmaking, in plasterwork, in concrete, and the use of cements, in wood and stone, must come home to the thoughtful workman, and lead to further enquiry and a greater present interest and skill in his work. You can see, too, what good practice the rough but faithful enlargement of the best examples, necessary for the illustration of the above, would be to any students who would undertake to aid the lecturers of the session in the preparation of their diagrams.

Suppose the lectures limited to but one each month during the session, and that they followed the order of our programme and took the place of our present monthly papers, they would supply a want already felt, would insure a better attendance of our own members, would be less burdensome to the teacher, and would secure in time a large and increasing appreciation on the part of non-professional audiences, and leave circles yet unreached. Such a subject as heraldry, so interesting and important to the archæologist; as heating, lighting, ventilation, or fire-proof construction, so perplexing to the public, in the hands of one having daily to deal with these matters, would lose much of its difficulty and gain much in importance.

Geometrical forms would cease to be puzzles when a hundred objects of beauty were seen to be derived from them. The laws of mechanics cease to be dry when explained by the simple expedients common with the workman. The reasonings of science would be shown to be in the main also the reasonings of the quarry-man and the mason. The history of architectural forms once apprehended would do more towards a correct taste—towards a relinquishing of their misapplication—than any reasoning on another basis; and the best things in all styles would be more clearly seen to be our common heritage and the spirit rather than the letter our truest exemplar.

In furniture, in hangings, in carpets, in colored decorations of all kinds, a vulgar display would be more rapidly superseded by a refined discrimination which would

marvel at its previous likings, and shrink from former incongruities.

We have still to deplore a want of system in study, of opportunities for the rapid solution of difficulties, by those more experienced than ourselves; of selection as respects professional text books and other works of reference; of means of testing progress by examination; of a certificate or diploma testifying to competence. Such a scheme as I have been hastily sketching would minister to these needs and would ultimately necessitate a more careful and special training than at present obtains. Each session, instead of being very much a repetition of its predecessor, would be by lecture, study, and examination, a continuation and fulfilment of a prescribed and carefully planned curriculum, capable of attracting the youngest and of furthering the education of the more advanced, while allowing our friends and our humbler fellow-labourers to share in our own advantages.

I am not prepared to submit a complete scheme to you this evening; I doubt the competence of one member to frame, unaided, such a one as would completely meet our present possibilities and needs; unless our meetings were rendered so numerous as to be burthensome when added to our other duties, a completely exhaustive system would not perhaps at present be possible. We must content ourselves with seeking to guide rather than to teach—to lead the student into right paths rather than to attempt to watch over him in all his wanderings.

The relation of science to the arts must be constantly kept in view; the origin and the varying uses of the form continually associated; the example tested by the difference between modern wants and the very different circumstances in which it is so frequently employed. We must try to recognise the good which a long series of misapplications and misunderstandings may have concealed from us, and to temper our ardent advocacy by a greater knowledge of the whole history of the art which most of us expect to pass our lives in the prosecution of, and which we are desirous that our clients should regard equally with ourselves as exemplifying rather a well balanced fitness, contributions to thoughtfulness in purpose and position and expenditure, than as principally promoting our own glorification or our clients' ostentation.

## THE RUIN AND RE-BUILDING OF NATIONS.

[Being Extracts, with Notes, from "An Essay towards Preventing the Ruin of Great Britain," by George Berkeley, Bishop of Cloyne. First printed in London, A.D. MDCCXXI.]

WE have had several remarkable examples of public spirit on the part of a few individuals, some natives, others foreigners, within the present century; but, considering the wealth of the British Islands and the huge fortunes of its merchants and landed proprietors in particular, it is a matter to be deplored that so little is done during the life of the wealthy, or provided by their wills towards the aid of suffering humanity or the interests of the common weal as a whole. Pauperism is still rampant, and crime is equally so. Ignorance for ages has been fostered by those who could have contributed to the education of the poor, but who have neglected to do so for reasons which it is unnecessary to state. Public society still suffers from the neglect of the past, and the wealthy classes are but unlearning the criminal folly of their ancestors. The poor are at this moment taxed for the education of the poor, and an educated working class is looked upon as a terrible evil by those who are not under the necessity of working for their daily bread. Education is working fastly both a reform and a revolution, and fifty years hence the whole face of society



will be changed by its working. Education must be always powerful for good if it is accompanied by morality and governed, as it ought to be, by the principles of truth. Without truth education is a great evil, and a really truthful man is he alone who is truly educated and is not swayed by his prejudices to aid a party or a certain school of thought to the injury of mankind. Self-preservation is a very good matter, but in application it may become a very narrow and selfish policy. We are not born for ourselves alone, but for the good of one another. If personal interests swayed every member of society during the last eighteen centuries, what a sad world would ours have been to-day. Would there, in fact, be aught but barbarism, without a public spirit being exemplified on the part of a portion of mankind in every age? It is unnecessary to dilate upon the subject.

"I am well aware, that to talk of public spirit and the means of retrieving it must to narrow and sordid minds be a matter of jest and ridicule, how conformable soever it be to right reason and the maxims of antiquity. Though one would think the most selfish men might see at once their interest to encourage a spirit in others by which they, to be sure, must be gainers. Yet such is the corruption and folly of the present age, that a public spirit is treated like ignorance of the world and want of sense; and all the respect is paid to cunning men who bend and wrest the public interest to their own private ends, that in other times hath been thought due to those who were generous enough to sacrifice their private interest to that of their country.

"Such practices and such maxims as these must necessarily ruin a state; but if the contrary should prevail, we may hope to see men in power prefer the public wealth and security to their own, and men of money make free gifts, or lend it without interest to their country. This, how strange and incredible soever it may seem to us, hath been often done in other states, and the moderate English temper considered, together with the force of example, no one can tell how far a proposal for a free gift may go among the moneyed men, when set on foot by the legislature and encouraged by the example of two or three men of figure who have the spirit to do a generous thing, and the understanding to see it is every private man's interest to support that of the public."

[Love of country is a noble sentiment, but we have lived to witness it trafficked in by men of all creeds. It is not having a country to serve, but to sell, that many of our would-be public men glory in, in these days. Mere mock patriotism is a marketable commodity, like the lawyer's or doctor's advice; moreover it is always in the market at the service of any faction or party who pays the highest price. A popular poet interrogates—

"Breathes there a man with soul so dead,  
Who never to himself hath said,  
This is my own, my native land?"

Alas, there are many! The love of country that we would like to see existent is that love where sacrifices are made to lift her up in moral grandeur and commercial greatness, by developing her resources instead of manufacturing sentimental grievances. Industry and native enterprise can lift any nation up, no matter how low her condition; but if years are frittered away by warring factions about shades of political opinions and hues of religious thought, and if crimes of the past ages are dug up to stir the passions of the present generation, nothing but ill-feelings and heart-burnings can result.]

"If they who have their fortunes in money should make a voluntary gift, the public would be eased, and at the same time maintain its credit. Nor is a generous love of their country the only motive that should induce them to this. Common equity requires that all subjects should equally share

the public burden, and common sense shows that those who are foremost in the danger should not be the most backward in contributing to prevent it.

"Before I leave this subject, I cannot but take notice of that most infamous practice of bribery, than which nothing can be more opposite to public spirit, since everyone who takes a bribe plainly owns that he prefers his private interest to that of his country. This corruption is become a national crime, having infected the lowest as well as the highest amongst us, and is so general and notorious that, as it cannot be matched in former ages, so it is to be hoped it will not be imitated by posterity.

"This calls to mind another national guilt which we possess in a very eminent degree, there being no nation under the sun where solemn perjury is so common, or where there are such temptations to it. The making men swear so often in their own cases, and where they have an interest to conceal the truth, hath gradually wore off that awful respect which was once thought due to an appeal to the Almighty God, insomuch that men now-a-days break their fasts and a Custom House oath with the same peace of mind. It is a policy peculiar to us, the obliging men to perjure or betray themselves, and hath no one good effect, but many ill ones. Sure I am that other nations without the hundredth part of our swearing, contrive to do their business, at least as well as we do, and perhaps our legislature will think it proper to follow their example. For whatever measures are taken, so long as we lie under such a load of guilt as national perjury and national bribery, it is impossible we can prosper."

[The curse of bribery and perjury is still powerful amongst us, notwithstanding the punishment which the law provides. Lying is almost a natural trait. We lie not only for our own pleasure and profit but also for the accommodation of friends and public parties. To lie in the matter of our trade or business is reckoned excusable, and to slander a brother professional who is superior to ourselves, or who may stand in our way, is thought by some a species of practical joking. It is difficult to say in these days where the code of honour begins or ends, or if there is such a thing as honour where personal interests are upheld by such practices as are known to us all. National strength or prosperity can never be maintained for any length of time where such a system finds favour, but national disaster and ruin must eventually be the result. There is little real sympathy now between masters and workmen, or between mistresses and their servants. Where tyranny is practised, lying and theft is often the result; and where a cold and distant reserve is maintained by employers, the workman performs his duties perforce, but performs them indifferent as to whether his master obtains credit by his services or handiwork. Badly paid labour is an evil, and is often productive of crime. Poverty may compel a man to submit to low pay altogether disproportionate with his abilities, and if he finds an unfair and selfish advantage is taken, he may be tempted to commit a theft. Injustice on one side produces injustice on the other, and the unfortunate victim may, in many instances, deserve more pity than punishment. The law is necessary, though the law must often fail to keep men honest. The well-springs of integrity and honesty have their source in every human heart, and their purity is kept untainted by the teachings of those beliefs that tell us to love our neighbours and do no wrong, even in return for wrong inflicted upon ourselves. A good mother is the fittest nurse, and good parents will show good examples to their children which will blossom in their manhood and bear good fruit even in old age. The law is needed only for the protection of such a race, as they will never be among those who will elect the service of the law to do an injury to their neighbours. The best advice that man can ever give to

his fellow-man is, to be truthful; and if he practise it himself, he will be a worthy pioneer on the path that points to national happiness and prosperity.]

Another extract or two from Berkeley's essays will conclude our subject.

### THE BELFAST ARCHITECTURAL ASSOCIATION.

At a meeting of this association held on the 20th ult., at the Museum, Vere Foster, Esq., in the chair, Mr. Thomas Stevenson read a paper on "Sound." The first part of the paper referred to the production and propagation of sound, and the laws relating to its reflection, conduction, and absorption, and explained how certain substances conveyed sound with greater rapidity than others. The law that the angle of incidence is equal to the angle of reflection holds good only when that angle is greater than thirty degrees. This explains the peculiarity of the whispering gallery at St. Paul's, the sound being conducted round the walls instead of being reflected. The second part treated of the materials employed in construction with reference to their acoustic properties, and discussed their application to some of our modern buildings. The best materials for acoustic purposes are those which do not reflect sharply, but assist the sound by vibrating in unison with it, and thereby strengthening it as it passes forward; and where the materials are of a highly reflective character, the use of draperies was recommended for preventing the echo. In all buildings which are designed for holding large audiences, the floor should rise in a peculiar curve, called the "is-acoustic curve," the method of constructing which was explained to the meeting. The meagreness of our knowledge in the practical application of acoustics to building has led to many failures, the result of which is that many expedients, such as sounding boards, reflectors, &c., have been resorted to, to remedy the defects. Reference was also made to the conveying of the sound by tubes with bell mouths in churches to the pews of those suffering from deafness. The paper concluded with a reference to the ordinary mode of construction of theatres, and some practical suggestions as to improvements which might be made.

### THE COLLAPSED CORPORATION GAS BILL.

The opinion of Sergeant Armstrong was hardly needed to seal the fate of a measure promoted to save the pockets of the projectors at the cost of the ratepayers. Such rascally conduct as has been shown in relation to the promotion of the late Gas Bill and the former measure, has scarcely a parallel in the history of municipal bodies. The discussion that took place at the special meeting of the Corporation on the proposition to withdraw the obnoxious bill was highly characteristic. When a division was called for, some members began to slink away for the purpose of creating a sort of a dead-lock or no house. Alderman Durbin is reported to have said—"Any members who left under such circumstances should be expelled from the Corporation. It was the most scandalous thing he ever knew that members should deliberately put the Council to an expense of £2,000." Our opinion is, that not only a few members, but that two-thirds of the present members of the Council ought to be expelled from the Corporation, and prevented for the remainder of their lives from having any contact whatever with the municipal affairs of the city.

The Gas Bill is withdrawn, but the would-be aiders and abettors of a huge swindle are unpunished. An individual is punished if he be caught or proved to be obtaining money under false pretences. Does the fact of a man committing a crime in his corporate





NEW CHURCH OF SAINT PATRICK & DONEGAL STREET BELFAST © O'Neill and Burke Architects

Photo Lith by Pim Brothers & Co Dublin







capacity save him from the condign punishment and exposure his conduct merits? The whole of the individuals (and we do not care who they are) who were guilty of the late shameful attempt to cajole the public in the matter of the Gas Bill ought to be laid by the heels where they would "cease to do evil and learn to do well."

At the late meeting of the Council, when the bill was about being withdrawn, certain well-known and very busy members were conspicuous by their absence. Perhaps they were attending to their other interests where their dividends were at stake, and where gas is the order of the day as well as the night.

One gas measure is got rid of, but there is another "Richmond" in the field, in which some of the promoters of the late measure have more than ordinary interest. We do not desire to see the Alliance and Dublin Consumers' Gas Company smashed up, neither is there any danger of such an event, considering the price of coals and other matters contingent. What is wanted is an economical system of management, and the employment of officers who know their duties, and who possess practical ability. The Board of Directors might also be improved, for we have at least no faith in the wisdom or sincerity of some of the gentlemen.

We hope the public will give a strenuous opposition to the Alliance Gas Bill in its present form, and submit to no compromise except what is dictated by reason.

Not even for the special behoof of lords, M.P.s or churchmen will we cease to comment upon or expose what we believe is injurious to the common weal.

### THE LATE MR. OWEN JONES, ARCHITECT.

THE remains of this highly-esteemed and well-known architect were interred at Kensal-green Cemetery, London, on Friday, 24th ult. He was distinguished for his skill as an ornamental decorator. He studied for some time under Mr. Vulliamy as an ornamental designer, and travelled for some years in Spain, Turkey, and Egypt in conjunction with M. Jules Goury, a French artist, during part of which time he made numerous designs for the Alhambra. His services were enlisted in connection with the decoration of the International Exhibition in Hyde Park in 1851, as also the present Crystal Palace at Sydenham, being the designer of the Greek, Roman, and Alhambra Courts. Mr. Jones was the author of a work on "Mosaic Pavements"; he also wrote "An Apology for the Colouring of the Greek Court," in which he was assisted by Mr. G. H. Lewes and Mr. Watkin Lloyd, in answer to some objections made to his treatment of colour, &c., in connection with the court named. The deceased architect also gave a series of lectures some years since on Decoration at the London Institution, the Society of Arts, and other places. The work, however, by which his name will hereafter be, as it is at present, principally known is his "Grammar of Ornament." Mr. Jones, it may be admitted, has advanced the knowledge of ornamental design and chromatic decoration in these countries more than any other architect living. His advice and aid were enlisted on a variety of occasions, and in connection with a variety of public works during the last twenty years. The St. James's Hall, London, completed in 1858, was built after the designs of Mr. Jones. The late architect was a native of Wales, as his name indicates, and was born somewhere in the Principality about the year 1809. At his funeral the Royal Institute of British Architects was represented by its president, Professor Donaldson, Sir Gilbert Scott, R.A., F.R.S., Professor Kerr, Mr. Edward Barry, R.A., Mr. Cockerell, Mr. Thomas Wyatt, and Mr. Horace Jones. The Commissioners of the Exhibition of 1851 were represented by Mr. Cole, C.B., and other gentlemen. The

Crystal Palace Company sent two of their directors, Dr. Price, and Mr. George Grovo, together with Messrs. H. A. Smith, Dickie, Rees, and Boole, members of the deceased's working staff in the fine arts department; and amongst the representatives of scientific and artistic circles were Mr. Warren Delarue, F.R.S., Mr. Peter Graham and Mr. Forster Graham (Jackson and Graham), Mr. W. W. Delaine, and others. The funeral cortege left the late residence of the deceased, in Argyll-place, at noon. In the first coach were the Rev. Dr. Peter Maurice, Captain Llewellyn Roberts, Mr. Wild (brother-in-law of the deceased), and Mr. C. T. Wild (his nephew). The second coach contained Mr. Warren Delarue, F.R.S., Mr. F. O. Ward, Mr. Edward F. Pigott, and Mr. Warren W. Delarue. In the third coach were Sir Gilbert Scott, R.A., F.R.S., Professor Donaldson, Mr. Edward Barry, R.A., and Mr. Thomas Wyatt. The fourth coach conveyed Mr. Cole, C.B., Professor Kerr, Mr. Cockerell, and Mr. Law. Among the private carriages following was that of Lord Granville.

### CIVIC LYRICS.—No. LX.

DR. MULDOONEY.

"Quack, quack," said the duck.

In Skinner's-row there lives a "quack,"  
More of a sharp than a looney;  
He cures all pangs in the loins and back,  
Kills them off at the first attack—  
His name is Dr. Muldooney.

He prints his puffs in the city Press,  
Chaste editors take his money,  
Yet laugh at the fellow's sham address,  
Shake hands with him too, sometimes, I guess—  
A fact—ask Dr. Muldooney!

Wonders, they say, will never cease,  
Though marvels these days are puny.  
In Skinner's-row you are charged no fees;  
You pay for the draughts and get a squeeze  
Gratis—from Dr. Muldooney.

Some envious-minded people say  
That only young persons spooney,  
Who somehow or other are led astray,  
Go round by Cork-hill, out of their way,  
To call on Dr. Muldooney.

Perhaps they know at the City Hall,  
Where they waste the public money,  
If Skinner's-row nuisance needs a call,  
A disinfection, or a downfall,  
For good, and Dr. Muldooney.

Oh! for another Jonathan Swift,  
For it needs no efforts puny  
To stamp out vermin, who daily lift  
Their heads to practise the vampire gift,  
Like virtuous Dr. Muldooney!

CIVIS.

### THE STATE MANAGEMENT OF RAILWAYS.

WE have been advocates for transferring to the State the management of Irish Railways, but our reasons originated from witnessing the wretched manner in which they have been worked for years, and believing that an efficient system of control was needed in the public interest.

We almost despaired seeing any improvement under the present system, which, according to the report of 1868, showed that, in this country, there were 1,908 miles of railway, managed by 39 distinct corporations, 39 secretaries, 39 solicitors, 39 engineers, 70 auditors, and the mystical number of 333 directors. What was to be expected from such a divided management but a minimum of convenience with a maximum of charge? The profits were eaten up in paying officers, and what should go to improve the plant and rolling-stock and in affording better accommodation and a reduction of fares, was swallowed up in donations to directors and dividends, the latter, indeed, being some-

times very small, and yearly fleeing to a vanishing point.

We are at a loss to see how, from a "Homo Rulo" stand-point, any strong argument could be adduced for State purchase. We should suppose that the "Home Rulers" would prefer to see Irish Railways in Irish hands, in view of the happy period of national independence that is to arrive, and not to vote for a system which tended to transfer to English hands the best appointments in connection with a native enterprise. The arguments of Home Rulers on State purchase are a complete paradox, and afford their opponents sufficient weapons for giving them a crushing blow. Such a blow has been dealt in the House of Commons on Tuesday night.

An amalgamation of the Irish system we believe would be beneficial, and the Government, with a good show of reason, could be asked to advance a few millions with the proper guarantees to complete the lines projected and improve those worked. This alternative remains, and we have little doubt the government will see their way to render this assistance.

We have been ever opposed to a system of jobbing, and we must confess, that the movement towards State purchase in Ireland has latterly assumed a jobbing complexion. When the notion got abroad that the Government were likely to acquire the Irish Railway lines, like the telegraph lines, nothing from that moment was done by the Irish Companies to really improve their property. Shares were purchased and transferred, and the over-confident directors and others concerned, settled down and resolved on driving a hard bargain for a very indifferent article. We cannot say we are sorry for their disappointment, though we regret that the public will still for some time have to "grin and bear," and put up with wretched accommodation, and probably, in some instances, an increase of fares.

To be candid, we cannot see how the State could be asked to purchase the Irish lines without being equally bound to purchase the English and Scotch lines. Some of the latter lines are badly worked, as well as the Irish, and afford little profit to shareholders, occasioned by some of the bad causes that operate so unfavourably to the Irish system.

According to a statement made by Mr. Goldsmid during the debate on the purchase question, the total mileage of railways in England, Scotland, and Wales, in 1872, was 15,000 miles, and in Ireland 2,000, and the capital involved was upwards of £570,000,000, upon which an average of 4.1 per cent. was paid to the holders of stock. It was estimated that the purchase of the railways would cost the State upwards of £1,000,000,000 for plant, and compensation, and prospective improvement—a sum more than double that of the National Debt.

Without going into all the surroundings connected with the purchase, in which the acquisition of collieries, carriage works, and hotels, and the employment of a vast number of officers, would have to take place—the undertaking would be something gigantic, in fact, it would be a government within a government, in which the railway system alone would monopolise nearly the whole time of the Imperial Parliament.

Now that an end has been put to the hopes entertained in this country as to the State purchase of the Irish Railways, it is to be hoped that the Irish Companies will settle down to some honest work, in improving their respective lines, or effecting a desired amalgamation. Self-exertion, after all, is the truest criterion of success. Native enterprise, when wisely and honestly directed, has always led to marked improvement, while dependence on external support to recoup our losses has been the bane of this country. The old maxim of yesterday, to-day, and for ever, unchanged and unchanging, must hold true—"Aid yourself and Heaven will aid you." Will we profit by its application?



## THE STUDY AND PRACTICE OF ARCHITECTURE.\*

(Continued from page 119.)

I SPOKE to you last week of the various modes by which the study of architecture may be approached, whether from its archæological, its scientific, or its artistic side. In strictness it might seem that the last of these aspects is that on which alone it is legitimate to dwell in an academy of arts. Architecture, however, is so purely artificial, that it is impossible to understand it properly, without entering into those historical influences and those materialistic limitations, which affect so greatly its form, and character.

I asked you in my last lecture to devote a short time to the consideration of the various claims of architecture on the admiration and interest of men. I propose to-night to dwell on certain tendencies of our own time, and to refer to some modern revivals which may throw light upon the question of the ultimate form which our art is likely to assume.

There can be no difference among architects in replying, that any style of the future must be based, more or less, on those of the past, or on one of them. Here, I am afraid, agreement will cease, and we shall find ourselves face to face with the question of Gothic, or Classic.

Sir Gilbert Scott has lately alluded, in this place, to the division of architects into two camps, a remark he probably wished to be received with some qualification, as there can never be wanting bonds of friendship and alliance, between all true followers of art.

No one who cares for architecture at all, can speak disrespectfully of the great Mediæval revival which this century has witnessed; and its very completeness seems to suggest that the time may have come to inquire what is likely to be its result. In making this inquiry it is not easy to avoid being misunderstood, so hot and eager have been the contentions of opposing schools. It is unnecessary, however, to contend for a rigid uniformity of taste, and in speaking to students no one would wish to repress the enthusiasm which sits so gracefully on youthful neophytes. A want of interest is the parent of decorous dullness, and there is no silence like the silence of the grave.

Where there is earnestness there will be controversy. It has ever been so, and in matters which touch mankind's innermost feeling more than art can ever do, it may be doubted if the will to press dogmas even to their logical result of persecution, has ever been limited, save by the absence of power to carry it into effect. We must, therefore, make every allowance for anything which may appear to sober observers to have been extravagant, in that zeal which has revived an almost extinct enthusiasm, and has invested our architecture with so much that is poetical and interesting. At the same time, we may ask, if the day has not come to lay aside that intolerance of opposing views, which has too often found a place in architectural discussions. It may surely be possible to prefer, for modern use, classic art to its Mediæval sister, or even to dwell on the convenience of Renaissance, without giving occasion for the use of terms more fittingly reserved for moral delinquencies, than for artistic preferences. It is in this respect that a lecturer, not unacquainted with the difficulties and responsibilities of practical work, may possibly have some advantages over professors guided by theory alone, as he will have learned too much from the great teacher Experience to cherish the belief that his own views are infallible, and that he is therefore entitled to pour out his contempt on those who differ from them.

Professor Cockerell showed his moderation and breadth of view by the manner in which he dealt with the Gothic revival of his day; and Professor Scott only followed his example when he so lately insisted on the value of the study of the architecture of Greece and Rome.

It has been my lot, from early associations, to be mixed up with the discussions on both sides, and to have some experience of both camps. A learner under Professor Cockerell, and one to whom I owe a deeper, because a filial reverence, I can also remember the delight with which I devoured Pugin's "True Principles of Christian Architecture," and the other works by which he strove, often with exaggeration, often with humour savouring of burlesque, but always earnestly, and with the vigour of genius, to recall his countrymen to what he deemed their true artistic allegiance.

No one, therefore, is less likely than myself to wish to do scant justice to the remarkable movement which, during the last thirty or forty years, has made so great a mark on our architectural history.

Moreover, nothing can be further from my pur-

pose in asking you to consider well the lessons taught by the study of the past than to discourage originality; for you may depend upon it that in an art like ours originality can never spring from ignorance, and yet possess any artistic character. Ignorance may produce buildings which may startle the world, but it will not add to the masterpieces of art.

The young architect must therefore study his art historically, and thoroughly, before he can hope to practise it successfully. With knowledge, will come its necessary consequences—responsibility,—and it is right and proper that he should form a definite opinion on the claims of different schools. I am, however, much mistaken if his studies, provided they are undertaken in a proper spirit, will not teach him moderation of judgment in estimating the merits or demerits of those forms of art which have been the admiration of centuries, though they may not happen to fall in with his own special tastes, or with the fashions of the day.

In thus speaking, I do not wish to confound a momentary fashion with the spirit of the age in which we live. All healthy and good heart must be penetrated by the latter, while resisting the ephemeral influences of the former. What would he our interest in the Venetian school of painting if Titian and Tintoretto had ignored this principle? It is the same in architecture. The best examples will be found to have been the legitimate fruit of the aspirations of their time, whether that time was ruled by devotional, political, or material influences.

In our days architecture has, I fear, fallen somewhat short of its mission in this respect; and the revivals, whether Gothic or Classic, which have marked its modern history, will sadly perplex any future archæological inquirer into the ways and customs of the nineteenth century.

Our present desultoriness of practice, and consequent waste of strength, in forwarding the progress of art, is no doubt the penalty we pay for our more extended knowledge of the doings of all ages and countries; and it is difficult to suppose that any universal agreement will ever again be attainable on points which must remain questions of individual taste. But some general principles, such, for example, as truth of construction, are common to all forms of good architecture, and in the study of such principles will probably be found the best chance of progress. Beware of being led astray by idle fancies of a new style. Styles grow, but they are not made. Form your practice, if you will, on the type which appears to you, after careful thought, to be the right one to follow. Apply to it those principles which have ever distinguished good architecture in all styles. You will find these to be Beauty, Truth, Proportion, Fitness, and the like. Working on this foundation, patiently, carefully, and with a determination to do your best, you will fulfil your mission as an artist, and promote the development of your art, far more than in seeking for novelties, which first vitiate, and then pall upon the taste.

Do not, however, think that your first duty is to decide on the style of the future; be diligent to neglect nothing that can add to your knowledge of the past; be careful that you do your best in the present, and the future will take care of itself.

I have said that you cannot safely neglect the spirit of the age in which you live. Of course, I am not speaking to those who are satisfied that their own times are so bad, that they would shun their influences, as they would the contagion of the plague. These are the monks of the artistic world, and have, no doubt, a right to their own opinions although we are not bound to follow them.

Architecture, however, is the offspring of our daily requirements, and it is not the business of the architect to separate himself from his own time. We are all in some sense the worshippers of olden days. The glories of the past were the song of poets long before Horace, and will doubtless continue to be so, as long as time shall last. Can any of us, and least of all those who are advancing on the road of life, resist the spell? What years were ever like those of our youth? What days so sunny? What joys so unalloyed? Oh! the good old times! will they never return? Alas! no, the flowers fade, the world grows old, and nothing can stand still. We find ourselves, as it were, students of the fallen greatness around us. It is for us to learn by its teaching, not to copy its defects, and we shall misread the lesson if we try to force things backward, and waste our time in vain endeavours and regrets.

In learning from experience, then, the architect must not forget that we live in the nineteenth century, and are of it. Is this a misfortune? Do you think that all goodness died out in some vaguely defined past? Do you suppose there is less of real religion, honour, patriotism, and public virtue now than then? We are sometimes asked, in desponding accents, "Are we better than our fathers?" in a tone which implies that a negative is the only pos-

sible answer. Every epoch in the world's history, like every stage in our own life from the cradle to the grave, has its own trials and temptations, and the nineteenth century has, of course, enough to answer for: but to estimate progress on a journey we must not look only at a single milestone, and can we conclude that nearly nineteen centuries of Christianity have left no mark on the world?

All ages have done honour to the glorious three hundred at Thermopylæ; but do you think the six hundred of the Balaclava charge will be forgotten? Shall we reserve our sympathies for the march of the ten thousand, and depreciate the exploits of our own people in the Indian mutiny? Or,—not to speak of the gallant handful of heroes in Africa, in whom our interest centres at the present time,—can we forget the grand spectacle of the patient endurance of our countrymen and countrywomen during the Lancashire cotton famine, when millions found themselves destitute by no fault of their own, and yet resisted all temptations to seek to alter the national policy because, they believed it was right?

I have been led into this train of thought to-night, because it seems to me that the great question which architects have now to ask themselves is this,—Are we of the nineteenth century to compress our ideas and architectural forms within the limits that prevailed in the thirteenth or any other century? Are we not rather to seek to march with our own time, as the old architects did with theirs? These are problems which each student must think out for himself; and on the answers which he may be able to give to them, will depend, not only his own success, but the very future existence of architecture, as distinguished from archæology.

After these introductory remarks, our attention may now be given, for a short time, to the course of architectural practice in this country, since the building of St Paul's. In a former lecture, given some years ago during the temporary absence of your late Professor of Architecture, I took occasion to trace rapidly the stages which had been passed previously to that important architectural event.

The revival of classical literature in the fifteenth century led, as most writers agree, to the change that then took place in architectural art. The great impetus communicated by the fall of Constantinople in 1453, and the previous preparatory efforts of men like Petrarch and Boccaccio insured a welcome for the new revival in the classic land of Italy. Thence it soon spread over Continental Europe, although it did not fully reach England till about a century later. We know that Queen Elizabeth prided herself on her classical knowledge; and the list of Lady Jane Gray's acquirements reads like a synopsis of a modern university examination. The courtiers of James I., moreover, were never so courtly as when they lauded the classical achievements of "the Royal Pedant." The literary tastes of the Court and of the upper classes led naturally to the adoption of classical forms of architecture, for in those days there were no influential classes outside the great Court circles, who claimed to be patrons of art, and could have turned aside the tide of fashion.

The influence of Inigo Jones as the Court architect of the day, was consequently for a time supreme, and during the reign of the Stuarts, previous to the Commonwealth, many remarkable buildings were erected by him. We all know the fragment of his design for Whitehall Palace, which we call the Banqueting House; and most of you are probably familiar with his plans for the whole structure, which, if erected, would have been among the largest and most magnificent buildings of the world.

During the civil wars, and the unsettled days of the Commonwealth, art was not likely to flourish. We cannot fancy Cromwell addicted to many of the graces of life, and his demeanour towards art would probably partake less of the sympathy and courtesy of Mæcenas than of the rougher vigour of the camp. The Restoration, however, brought back a court still imbued with classical tastes, and a king fresh from the influence of the Grand Monarque.

When we bear in mind the tame monotony, and the elaborate littleness of Versailles, which was erected at the same time as our own St. Paul's, I think we shall find fresh reason to recognise the judgment, taste, and skill of Sir Christopher Wren. We read in the "Parentalia," that the first stone of St. Paul's was laid in 1675, and about thirty-five years later, the top stone of the lantern was placed by the architect himself. Versailles was erected from 1664 to 1685; and considering the intimate relations which existed after the Restoration, between the French and the English courts, we can easily understand the influence which French fashions in architecture might have assumed, if Wren had been less a master in his art, than was happily the case.

I do not know that we have much to say in

\* Lecture II. By Mr. E. M. Barry. Read at Royal Academy, London.



favour of our restored English court, in those days ; but at least there was some independence left in English society. In France, we see the picture of Louis-le-Grand, with an array of chamberlains, mistresses, Jesuits, and lacqueys, with a coat embroidered with diamonds, a wig powdered with gold-dust, and red heeled shoes, which lifted him four inches from the ground, "that he scarcely seemed to touch." What could such a man do wrong? Himself the State, what homage could be too obsequious for the tastes and will of so grand, noble, and gracious a monarch? How could his judgment of architecture be other than infallible to the thousands of courtiers, who thronged the *Ceil de Bœuf*; seeking to imitate their grand exemplar, though at an awful distance, as we may fancy a star emulating the splendour of the sun?

How deserted and gloomy are these vast chambers now! Kings, princes, generals, and courtiers have passed away like a shadow; and the huge pile subsequently dedicated by the "bourgeois king" to all the glories of France, has, in our own day, echoed with the groans of sick and suffering soldiers, and its courtyards have resounded with German huzzas, and the hoarse word of command of alien conquerors.

You will find it very interesting to examine the work of Mansard and the other courtly architects of Versailles, and compare it with that of Wren. Time, however, would fail me now to do justice to this subject, and I must leave it to you to follow up at your leisure.

We will pass on to a consideration of the state of architecture in England after the days of Sir Christopher Wren. This brings us to the time of Queen Anne; and I suppose few of us, at any rate until lately, would have been disposed to credit that epoch with any well-defined style. Queen Anne's reign recalls to our minds, principally, days of English daring and triumphs on the Continent, child-like affections and intrigues about the Court, and political uncertainties as to the future reigning family of the monarchy.

To Englishmen, the name of Blenheim must always be glorious, and in an architectural review of the day, the palace of a nation's gratitude which bears that name, cannot escape our notice. Sir John Vanbrugh was Sir Christopher Wren's successor in Court favour, but not in architectural genius. With considerable opportunities he failed to found as enduring a reputation. Fond of massiveness, he achieved a certain gloomy grandeur, without harmony of proportion or beauty of ornament. His works are interesting, however, as proving that men were beginning to tire of the fetters imposed by a strict adherence to the Classical orders. At Blenheim, the principal order is not used throughout, and the skyline of the building is effective and broken, in opposition to the tameness of many of the revived Classical compositions. In fact, Queen Anne's time, as far as it developed a style at all, would seem to have done so by breaking away from established traditions, and by encouraging architects to design in less pretentious modes than had been lately fashionable.

Here it is to be feared praise must end, for the details were of a mongrel kind, with bits of quasi-Classical orders mixed with mullioned windows, and Gothic of a debased character. It was, if anything, a protest against the fetters of a rigid revivalism, and it is possible from this circumstance that it may again find favour for a time, although the danger now to be avoided seems to have arisen from the opposite point of the architectural compass.

If this is to be the case, it is probable that its details will be purified, and its forms made consistent with a severer taste, when there will be little to distinguish it from Italian Cinque-cento or Renaissance.

From Queen Anne's time to the days of the Gothic revival, our architecture has for the most part followed Classic types. Sometimes the architects ventured to dispense with the orders, as did Kent at the Horse Guards, but more often they relied upon them as the great feature of their designs. St. Martin's Church, by Gibbs, being an illustration of the latter kind of treatment.

Sir William Chambers brings us down almost to the present century, as he died in 1796. His greatest work was Somerset House, and though it may not be difficult to find many faults with its design, there is much in it which is worthy of praise. The poorest part is unfortunately that which is most seen, being the river front, which is tame and uninteresting, besides being placed on a terrace too high for a subordinate accessory to the design, which a terrace should always be.

I will not fatigue you by detailed references to the brothers Adam, (who, I believe, were among the ancestors of our late minister of Works,) or Taylor, Soane, and Wilkins, only pointing out to you, in passing, that all these architects worked in

the fashionable Classic of the day, and did not apparently dream of any change in the public taste. Of buildings nearer to our own day, St. George's Hall, at Liverpool, calls for a word of notice. This was, as you are aware, finished by Professor Cockerell, after the death of its young architect, Elmes, a man of the highest promise and genius. It is certainly one of the most beautiful modern buildings in Europe, and fitly represents the mode of treatment which was popular at the time of its erection.

Before, however, St. George's Hall was finished, a conviction was gaining ground that Greek architecture of so severe a type was inapplicable to our requirements, without considerable modifications. Professor Cockerell, in his practice, fully recognised this necessity, and you will find much to study in the buildings which he erected. I may select as an example, particularly deserving of your notice, the Sun Fire Office, opposite the north side of the Royal Exchange. This is a building evidently well fitted for its purpose, as the central office of a rich and prosperous commercial corporation, and it could hardly be mistaken for anything else. The whole composition is dignified with a sufficient amount of ornamentation. Every moulding and window-dressing bears evidence of careful thought, and displays unmistakably the refinement which belongs to the work of a true artist.

In passing through the City of London, you will see hundreds of buildings erected since the Sun Fire Office was built; but I doubt much if you will find anything better worthy of your attention, or more suggestive of what might be done by architects working on Greek traditions, but not slavishly copying inappropriate forms, only because they are old.

While Professor Cockerell was engaged in working out the principles which he taught from this chair, others, in friendly rivalry, were labouring in a similar spirit, with a view to adapt their architecture to modern requirements. The clubs in Pall Mall are examples of this movement, in which, as you are aware, Sir Charles Barry had no unimportant place. He had early directed his attention to Italian architecture, deeming Greek details too unbending to yield readily to the modifications, which he thought necessary, to make it suitable to the wants of nineteenth-century men and women.

He thought he saw the basis of a style such as he looked for, in the works of the Italian architects of the sixteenth century, such as Sanovino, Vignola, and Palladio; and he worked on this principle, seeking to carry out, what he was fond of terming the Anglo-Italian style.

You will not expect me to criticise his works, but I do not think you will accuse me of filial partiality, if I say that the garden-front of the Travellers' Club is to my mind one of the most graceful compositions of modern architecture in this country. It is simple, expressive of its purpose, and every part is carefully proportioned to every other. Some years ago the stone balustrading was removed from the first-floor balconies, and a meagre iron railing erected in its place. The effect was to destroy the rhythm of the whole composition. The windows were apparently increased in length by nearly a diameter, as the iron railings allowed the spectator to see their lower parts, which were hidden by the stone balustrading as originally designed, and their proportion was utterly destroyed. Happily the Club, on being appealed to, undid the mischief, and restored the balconies to their original appearance; but I have mentioned the circumstance, in order to lead you to reflect on the great value of proportion, and to point out how little differences of detail, which to many may seem unimportant, may make or mar an architectural design.

Sir Charles Barry entered fully into the feelings which dictated the Gothic revival, and as you are aware, carried out his greatest work in that style; but there is no doubt that what he called the Anglo-Italian style, as shown in the Travellers' Club, and Bridgewater House, was the style not only of his predilection, but of his mature conviction.

(To be continued.)

## A FRENCH COMPETITION.\*

CHURCH OF THE SACRED HEART, MONTMARTRE.

THE *Assemblée Nationale* of January 30th contained a long advertisement setting forth the dimensions of the new church, and inviting plans and tenders for the building. A brief summary of the principal items in this advertisement may not be uninteresting to many of our readers, whose zeal may have been, or may yet be, exerted in building

temples to the Most High. The concursus for plans is to remain open from the 1st of February to the 30th of June. In addition to the church, plans must be also submitted for sacristies and presbytery. The plan of the church must comprise a crypt or under church running under the choir and aisles, communicating freely with the upper church, and accessible from outside. The church will contain a nave, two aisles the full length of the nave, and carried round the sanctuary, and galleries or tribunes above the aisles. The choir and sanctuary to be sufficiently large for pontifical functions, and the entire building so arranged as to admit of twenty side chapels, one larger than the rest, to be dedicated to the Blessed Virgin. The buildings destined for sacristies and presbytery to be connected with the church by a covered way, to be so far distant from the church as not to interfere with its appearance of isolation. The sacristy buildings will comprise six distinct *locales*: 1. sacristy for the priests attached to the church; 2. sacristy for strangers and priests coming on pilgrimage; 3. sacristy for storage of sacred vessels, vestments, ornaments, &c.; 4. offices for the use of the pilgrimages and custody of the archives; 5. room for the chanters and choir boys; 6. lodgings for the resident sacristan. The presbytery is to lodge five priests, five or six church officials, and to have some spare rooms for visitors, one larger than the rest, for the reception of a bishop; it must, moreover, contain a cloister, an oratory, a library, two conversation parlours, two dining rooms, one kitchen with its accessories, etc. The plans must provide not only for the architectural portion of the church, but also for its decoration and furnishing, and each plan must be accompanied by a descriptive and detailed estimate of the total expense. This estimate to be divided into three chapters: the first to comprise the construction of the church, and the ornamental sculpture and statuary work; second, the construction of the sacristies and presbytery; and third, the decoration and furnishing—each chapter to be submitted to competent critics selected by the jury constituted for the entire work. The jury will be thus constituted: twelve members nominated by His Eminence the Cardinal Archbishop, and forming at present the artistic committee charged with advertising the present concursus; and six members to be elected by the competitors. A public exhibition of all the plans sent in will be held, and will remain open for twenty days, at the expiration of which term the jury will proceed to classify them. The author of the plan which gets first place will receive a premium of 12,000 francs; the second, 8,000 francs; the third 5,000 francs. The authors of the seven plans classed immediately next in order of merit after the first three, will each receive 1,500 francs, making a total of 35,500 francs, or nearly £1,500 to be spent in prizes for good plans.

## ARCHITECTURAL ASSOCIATION OF IRELAND.

An ordinary general meeting of this association was held on Thursday evening, 23rd ult.

Mr. R. S. SWAN in the chair.

The minutes of the previous meeting having been read and confirmed, Mr. Charles H. Brien, F.R.G.S.I., read a paper on "Technical Education," which will be found in another column.

Mr. Thomas H. Longfield (hon. sec.), in proposing a vote of thanks, said that Mr. Brien's proposal with reference to public lectures was a good one, both for the profession and the public. It was absolutely necessary to elevate the public taste, as there was great ignorance in society of architecture and the different styles. Such lectures as those delivered at the Royal Academy would do a great deal of good.

Mr. Mitchell (vice-pres.) said that he had great pleasure in seconding the vote of

\* From the *Irish Ecclesiastical Record* for March.



thanks, as Mr. Brien's paper was a very able one. At the same time he could not help thinking that the suggestion with reference to public lectures impracticable, on account of the great want of interest displayed by the industrial classes, who, as a general rule, will not learn unless knowledge is forced upon them. He thought that mechanics, mathematics, and drawing ought to be taught in the Government primary schools. Even with all the present disadvantages, any man who wishes may raise himself. Hogan, the great sculptor, is an example of a self-made genius. A poor boy of very humble parentage, he learned anatomy by listening clandestinely outside the door to medical lectures, and was not discovered for a long time, when he begged to be allowed to listen to them. This shews, if the desire to learn is there, men will make opportunities for themselves, and will succeed.

Mr. J. J. O'Callaghan (president) said that unfortunately he was not in time to hear the beginning of Mr. Brien's paper; but, from what he had heard, he must say that, whilst admiring the programme, he feared it would complicate matters, and put too much on the shoulders of the association. When art-cultivation is neglected by the Government of the country in such a disgraceful way, he thought the association could do but very little. In England there were systematic efforts made by the Government to educate the people in art, where we see such men as Sir Digby Wyatt, Barry, Scott, Ruskin, and others lecturing on art. He wondered that our workmen are so intelligent and clever as they were, considering the few opportunities thrown in their way of learning anything. He thought the duty of the association was to work amongst the members of the profession, not to go outside the programme.

The chairman, in putting the vote of thanks, agreed that Mr. Brien's scheme was an excellent one, but at the same time impracticable, as far as the association was concerned.

Mr. Brien, in returning thanks, said that everything said only convinced him more that an effort ought to be made by the association to popularise art and architecture. If there were public lectures in England, was it not a reason that we ought to imitate them? And if, as the president said, the Government will do nothing in that way, the association ought to step in, and the Government might possibly follow its initiative.

### THE LEGEND OF LADY HEARNE.

In my juvenile days I frequently heard it whispered by even sage people in B—— that Lady Hearne "shewed herself last night" to the sentry on guard at the infantry barracks.

Who is, or was, this Lady Hearne? will be asked. Was she a descendant of the antlered spectre of Windsor Forest? None of the two or three respectable families living in B—— claim kindred with her ladyship. Who was she? Perhaps a myth.

An old crone from the plain of Moytura, near Cong, solved to me the mystery one day, a short time since, when sojourning in the locality. She said—

"It was a dozen or so years after '98, when a crack cavalry corps was quartered in B——, that 'the route' came for the gallant—th Light Dragoons to proceed to the Peninsula, to engage the legions of France. Then there was a brave officer in command of that corps, Sir C. Hearne, Bart., who had to leave his wife behind him, in the hope of being able some day to return to her full of laurels and honours. Instead of such being the case, a letter appeared in the despatches of Sir Arthur Wellesley, mentioning with regret the loss to the army in the death of the brave Sir C. Hearne before the lines of Torres Vedras."

Her ladyship could not be calmed or comforted; she was, like Calypso, *elle fret inconsolable*. She was treated most kindly

by the three maiden sisters of B——, Mary, Jane, and Alice. Nurtured and nourished by those ladies, all to no purpose, Lady Hearne faded away—

"She never told her love;  
But let concealment, like a worm i' the bud,  
Feed on her damask cheek: she pined in thought,"

and left us, and was interred in the neighbouring churchyard; but her memory is made green with us since, as the night before the route comes, if the regiment is destined for the wars, she bewails it loudly like the banshee, so that her melancholy strains are echoed through the shades of Mr. Tighe's garden on the opposite bank of the river Robe and through the labyrinths of the Black Walk.

Finvarrow (*i.e.*, J. T——e) told me an anecdote about her ladyship's vocal powers arresting the attention of himself and a few others. Some years ago, while leaning over the parapet of that part of the bridge called the Blind Arch, he saw a light on the summit of Lady Hearne's castle or turret. Cautiously and timidly approaching the haunted spot, the party distinctly saw her ladyship piquetting with M. T——y as a partner, having for their *vis-a-vis* Thighe Thabae and Tom B——m. The light brightened up as they came nearer; with the inveteracy with which our new heroes consumed the Virginian narcotic, a cloud of incense enveloped the quartette—they disappeared, and, alas! all except Finvarrow are now food for worms.

I am promised by the latter a sketch or legend of Labha Diarmid, Lough Mask Castle, the old haunted chimney in Mr. Kenny's demesne, and the several cairns and monuments of antiquity in this interesting district of MacWilliam's country, should you not think them out of place in your interesting but practical Irish journal. C.E.

### GRANTS FOR PUBLIC WORKS AND INSTITUTIONS.

An examination of the Civil Service estimates for the ensuing year, and the queries their voting gave rise to in the House of Commons, will be found instructive. Ireland, as usual, comes in for scant share of the money voted on the score of necessary public works, improvements, or grants for the support of her national institutions.

In the discussion that took place on the estimates, the fifty "Home Rulers" appear to have considered it not worth their while to put a pertinent question, or to seize the opportunity of pointing out how the literary and scientific institutions of Dublin are treated in regard to State aid. Amongst "Home Rulers," we fear there are but few who know aught of science or art, or care to distinguish themselves, save by political oratory and agitation. If we wrong them, we hope one of their number will take up the cudgels and shew the British public that the national phalanx have among their ranks men of superior abilities and practical and scientific attainments.

We believe that there is not one representative of the architectural or engineering professions in Ireland in the present parliament. In the sister kingdom, we are not certain even if there be one architect, though there are several representatives of the engineering profession.

But as to the estimates—

On a vote of £28,630 for the repair of royal palaces,

Mr. Dillwyn expressed the opinion that some of the palaces not occupied by her Majesty, but by people who would be much better pleased if they were provided with more commodious lodgings elsewhere, might be a source of profit instead of a constant charge to the public if they were let or used for some public purpose. He specified Kensington Palace, which last year had cost £1,156, and was down this year for £4,656 for repairs.

Lord H. Lennox said that much of the vote applied to places of public recreation, and that as regarded Kensington Palace, which had been in the occupation of the late Duchess of Inverness, her

Majesty had apportioned it to her daughter the Marchioness of Lorne, and the sum in the estimates was to fit it for her Royal Highness's use.

The vote was then agreed to.

On a vote of £88,266 for the royal parks and pleasure gardens,

Mr. B. Hope asked what had become of the screen of Burlington House. It was a very interesting structure, and would make an elaborate termination to some long straight avenue.

Mr. Denison asked which of the two bodies, the park-keepers or the police, were to have the future charge of Battersea Park.

Mr. Neville-Grenville inquired what had become of the statue of Sir Robert Peel which some time ago had occupied a site near the House.

Lord H. Lennox, in reply, said that the colonnade would not be lost sight of; that the keepers would continue in charge of Battersea Park for another year, in consequence of new regulations; and that he would make inquiries as to what had become of the statue.

Mr. Dillwyn asked why an item of £1,273 had been charged for police attendance in connection with the department of the ranger of the parks, and his lordship promised to inquire.

The vote, after some further inquiries, was agreed to.

On that for £125,767 for maintenance and repair of public buildings,

Lord H. Lennox, in answer to several hon. members, said it was desirable to concentrate all the public buildings, so as to do away with the rental of small houses, and that every endeavour would be made to prevent injury to monuments, notably those in Trafalgar-square, by the *gamins* of London.

The vote was agreed to, as was also that of £12,058 for the supply of furniture to public departments.

On a vote of £23,695 for the Houses of Parliament,

An hon. member suggested the abolition of the new light in the tower, and the substitution of some telegraphic communication to hon. members instead.

Lord H. Lennox said that the Postmaster-General wished him to bring under the notice of the committee that at a very trifling cost a light might be exhibited from the central post-office at Charing-cross, which throughout the night would notify to hon. members whether the House was sitting; and that a similar light would be exhibited at some of the district post-offices until eleven o'clock.

The vote was agreed to.

On that of £34,730 to complete the sum necessary to defray the cost of the new Home and Colonial Offices,

Sir G. Bowyer made some disparaging remarks upon the architecture of those buildings, and recommended the First Commissioner to follow the old models, such as that of Somerset House, in any which might be erected under his tenure of office.

Mr. B. Hope thought the new offices would be an ornament to the metropolis. He wished to know when they would be occupied.

Lord H. Lennox dissented from the disparaging criticism of the hon. baronet with regard to the new buildings, and vindicated the reputation of Sir Gilbert Scott as an architect. The new offices would be occupied about Michaelmas next, and in the course of a few weeks the hoarding in front would be removed.

Sir G. Bowyer said he had no wish to say anything derogatory of the character of Sir Gilbert Scott as an architect.

The vote was agreed to.

A sum of £12,016 was voted as grants towards the building of court-houses in Scotland.

A sum of £25,000 was proposed to be granted for the extension of the National Gallery.

Lord H. Lennox, in reply to an appeal from Mr. B. Hope, stated that it was expected the new buildings would be open early next spring. Due precautions were being taken to secure the building against fire.

The vote was agreed to.

A sum of £4,000 was granted to the Edinburgh Industrial Museum.

A sum of £9,134 was granted in connection with buildings for learned societies at Burlington House.

A sum of £113,467 was granted for the Post Office and Inland Revenue buildings.

A sum of £4,545 was granted for the British Museum.

A sum of 40,000 was granted for Court Houses.

A sum of £8,106 was granted for Science and Art buildings.

A sum of £110,000 was granted for the ordnance survey of the United Kingdom.

A vote of £4,103 was granted for the construction of harbours, and a vote of £130 for Portland Harbour.

A vote of £8,300 was voted for a fire brigade for the metropolis.

Votes of £30,061 as a contribution in aid of the



local assessment for the relief of the poor, £400 for the Wellington Monument, £65,000 for the erection of a natural history museum, £19,443 for metropolitan police courts, £65,800 for the New Courts of Justice, and the total cost of which Lord H. Lennox stated, in reply to a question, would be about, £826,000; £630 for Ramsgate Harbour, £83,000 for the acquisition of land in Westminster for the further construction of the Thames Embankment. £145,760 for the erection, repairs and maintenance of several public buildings in Ireland; £15,300 for the erection and maintenance of certain lighthouses abroad; and £72,214 for Embassy Houses in China, Japan, Constantinople, Madrid, Paris, Vienna, Washington, and other places, were agreed to.

### THE DRAINAGE OF KINGSTOWN.

AN Inquiry, with Henry Robinson, Esq., as Commissioner, was held in the Town Hall, Kingstown, on Wednesday last, as to a petition presented to the Local Government Board by the Township Commissioners, seeking powers to borrow £10,000 for the drainage of the township. [We are obliged to hold over our report (although in type) until next issue.]

### BOOKS RECEIVED.

*A Monograph of Cormac's Chapel, Cashel.* By Arthur Hill, B.E., A.R.I.B.A., &c. Cork: 1874.

By the publication of the work before us, Mr. Hill is deserving of fresh laurels in addition to those won by him in former efforts. Besides twelve sheets of plans, sections, and details, the subscriber is supplied with two splendid photographs—views from the south-east and south-west. The latter were specially taken by Mr. Hudson, Killarney. In the title-page ("designated after the manner of the Book of Kells") we have a masterpiece of the draughtman's skill, of which Mr. Hill may well be proud. The medal awarded to him by the Royal Institute of British Architects (of which he is an associate) for the original drawings, was well deserved indeed. The building which has been so faithfully illustrated by our author has, our readers are aware, also formed the subject of papers published in this journal from the pen of Mr. Brash, under the title of "The Ecclesiastical Architecture of Ireland," and which, it is intended, will shortly appear in a 4to volume, with illustrations.

In his letterpress description, Mr. Hill says:—"This beautiful little chapel . . . is decidedly the most interesting member of a picturesque group of buildings that, crowded together, occupy the top of the great limestone eminence known as the 'Rock of Cashel.' Though small in size, it is picturesque in general form, adorned with well-executed detail, and displays in its construction an amount of skill and boldness almost unrivalled in any building of the age, and is justly considered the finest specimen in the country of the great Romanesque school of Architecture."

Mr. Hill's address is 22 George's-street, Cork.

The *Gentleman's Magazine*, for May, is amply supplied with food for all palates. Amongst the papers which will be read with interest, we may name—"Shirley Brooks," by Blanchard Jerrold; "Edgar Allan Poe's Early Poems," by John H. Ingram; and a poetical piece from the pen of the author of "White Rose and Red," entitled "Erós Athanatos." "Olympia" advances a few chapters more, and "Clytie" is concluded. In "Men and Manner in Parliament," by the Member for the Chiltern Hundreds, is discussed the difference between the House that was and the House that is, and their leaders. We are told by the ex-M.P., that "The House dispersed by the dissolution that startled the world in January last, seemed built over a volcano; or, to adopt a more strictly parliamentary illustration, on cellars filled with gunpowder." And, "The

present House of Commons, as far as it has at present developed its characteristics, is a sober, business-like assembly, that comes down to get a certain amount of work performed, and is chiefly concerned to run through it as quickly as possible, and 'go homo to bed.' For this marked alteration in demeanour, the change in the personnel of the ministry is undoubtedly principally accountable."

*Arrangement of Houses, considered in reference to Sanitary and Artistic requirements.* By Henry MacCormac, M.D. Belfast: W. H. Greer.

This is a reproduction, in pamphlet form, of a paper read before the Belfast Architectural Association, in January last, portions of which have appeared in our columns.

*The Question of the Day.* By William Hoyle. London: Simpkin & Co.

This pamphlet deserves the earnest attention of "electors and politicians." In it we are furnished with statistics showing the increase of pauperism, and the consequent increase of rates. Pressure on our space prevents us giving it a fuller notice.

### THE MUNICIPAL PRIVILEGES BILL (IRELAND).

THIS Bill was, on the motion of Sir Michael Hicks Beach, on Tuesday evening last, remitted to a select committee. It is likely to come forth again denuded to some extent of the powers sought by Mr. Butt.

We are advocates for assimilating the privileges of such municipal councils with those of England, but in the matter of giving the power to Irish bodies to elect sheriffs, and to do other acts where patronage may be connected with jobbery, there is certainly a little danger. This charge would however disappear, if the character of the representatives of our corporations in general was improved. In Dublin particularly, not to speak of southern cities, the desire of possessing patronage is strong, and such power as at present exists is seldom wisely exercised.

By the English Municipal Reform Amendment Act of 1867, the qualifying period for voters was reduced from two and a-half years to one, and female ratepayers were enfranchised. It is therefore manifestly unjust in this particular, that two and a-half years should be required in Ireland. Let us have an assimilation of the municipal franchises, by all means. It would be unfair for this city to be debarred of privileges exercised by county towns. We dare say an effort will be made in committee to make the present Bill distasteful to its projectors, and Irish corporations generally; but if the Bill should possibly pass nearly in its original state, it will thenceforward be the duty of the ratepayers and electors to improve the representation by returning a better class of members.

### STRIKES.

THE ship-painters' strike in Glasgow, which took place on the first of last month, in which 400 men came out, has terminated in favour of the men. They asked for an advance of a halfpenny per hour, to make the wages 7½d. Some of the employers having conceded the demand on the first week, others followed suit.

Partial strikes in the building trade have taken place in the south of England. In Taunton the carpenters and joiners have sought for an advance of wages.

In Sunderland the ship-joiners and other operatives connected with shipbuilding have been for several weeks out on strike. In several districts the colliers have threatened to strike, sooner than submit to a reduction; in other places they have consented to an arbitration.

The agricultural strike in England is

assuming large dimensions, and hundreds of men are leaving the country with their families.

Coal-cutting machinery is being introduced into some of the mines in Somersetshire, and it is anticipated it will show productive results.

There is no likelihood of any disturbance in the London building trade this season, though there are other trades which are showing symptoms of uneasiness. Unless the price of coal falls considerably, iron is likely to retain its high price, and be used more sparingly in all building operations.

### THE ROYAL IRISH ACADEMY.

THERE was a general meeting of the Academy on Monday evening,

Dr. W. STOKES, F.R.S. (Pres.), in the chair.

Dr. W. P. Wright, secretary, read minutes of last meeting.

Letters were read from Professor Thomas H. Huxley, Marcellin Berthelot, of Paris; and Professor Johann Von Lamont, of Munich, acknowledging the honour which had been conferred on them by the academy of being elected honorary members.

Professor Macalister read a paper "On some Points in Bird Myology, considered in reference to Mr. Garrod's new classification."

Dr. Wright read a paper, by R. R. Brash, Esq., "On an Ogham Inscribed Stone at Ballycronane, County Cork, 17 ft. 6 in. high, by 3 ft. 6 in. in breadth.

Several donations were acknowledged.

### THE ROYAL HIBERNIAN ACADEMY.

#### ADDRESS TO THE LORD LIEUTENANT.

A DEPUTATION from the Royal Hibernian Academy of Arts waited on his Grace a few days ago for the purpose of presenting an address. The deputation consisted of:—Messrs. Thos. A. Jones, President; B. Colles Watkins, Secretary; Thomas Farrell, Treasurer; P. Vincent Duffy, Keeper; H. M'Manus, Professor of Painting; J. J. M'Carthy, Professor of Architecture; J. R. Kirk, Professor of Sculpture; Thomas Drew, Michael Angelo Hayes, John Woodhouse, J. H. Owen, M.A.; and W. F. Doyle.

His Grace intimated to the deputation that he would take an early opportunity of paying a visit to the Academy's exhibition.

DONNYBROOK FAIR-GREEN.—The announcement that this ancient Fair-Green is to be yielded to the mercy of building speculators, has given rise to some correspondence in a morning journal. We are of opinion that if the residents of the locality have the right of commonage, it should be maintained to them. The question will, no doubt, shortly be tried.

### TO CORRESPONDENTS.

MAIN DRAINAGE.—No doubt the Lord Talbot de Malahide, Lord Howth, J. E. V. Vernon, Esq., and other proprietors will not be slow to protect their interests on the sea shore. The sewage difficulty will not be the only difficulty with the projectors.

A MUSEUM.—You have interpreted our meaning aright. We will have something more to say in re Dramatic Art and the Irish Stage.

ERRATUM.—In our last, under "To Correspondents," in the matter of the "Old Tholsel," read *Charles II.* instead of *George II.*, the statues being of the former and James II. The year mentioned would, however, have led to the correction of the error.

CHRIST CHURCH "RESTORATION."—It is not necessary to take particular notice of the matter referred to by our correspondent. The work is good from a masonic point of view, though some of the details are objectionable.

A BUILDING WANT.—An Irish Builders' Price Book will not be issued by any of our Dublin publishers; their enterprise does not lie in that direction. We admit a price book for native wants would be an acquisition. Perhaps some London publisher will see his way to adding a supplement to one or more of his publications, in which a list of Irish prices will be given in relation to workmanship and materials.

CITIZEN.—The subject is dealt with elsewhere.

A CARPENTER.—Peter Nicholson was a native of Carlisle, we believe. He wrote a work on Cabinetmaking as well as on Carpentry and Joinery.

T. W.—Tracing to hand. We shall probably make use of it after awhile. Thanks.

B. II. B.—Concluding part has been received. Could you have copies of parts I. and II. left at our publishing office? A notice of the entire work might, perhaps, be desirable.



## HOME AND FOREIGN NOTES.

Colorado, which had not a mile of railroad less than five years ago, has now ten lines, having a total length of 668 miles.

It is proposed at Pittsburg to bring iron ore from Chattanooga, in order to keep down the price of that received from Lake Superior. It is claimed that ore can be had in Chattanooga for 3 dols. 50 per ton, and that the freight and other charges will not exceed 7 dols. 70.

**AMERICAN LOCOMOTIVES FOR RUSSIA.**—Philadelphia is about to ship fourteen locomotives to Odessa, Russia. The freight is 1,200 dols. per locomotive. Some years ago the English were disagreeably surprised when the Belgians first competed with them in this line of business, and this American venture will be likely to give them a new emotion. Russia has long been a veritable place for English railway men, although the Germans as well as the Belgians have been competing with them. Several new lines of railroads are to be constructed in the immense and still undeveloped region of southern Russia. These welcome drafts upon American machine shops may be expected to increase. Beginning as far back as 1843, it is known that Russia entered into contracts with Americans for locomotives, as well as the full equipment of her first great railroad of 400 miles from St. Petersburg to Moscow, the contracting firm including Mr. Thomas Winans, of Baltimore, with Mr. Harrison, of Philadelphia, who has recently died, and Mr. Eastman. Their contracts were for many millions of dollars, and included, about 1850, a new one to "remount"—that is, renew and keep in good repair the whole of the rolling stock for twelve years.

**HOMES OF RUSSIAN LABOURERS.**—Thoroughout the empire the agricultural labourers live almost entirely in houses of their own, which are constructed in the following simple fashion:—Logs of the red pine are cut into the required lengths—three, four, or five fathoms—according to the proposed size of the house. The lengths are placed one above another, the ends being dovetailed together, thus forming, as it were, a huge box of logs. The doors and windows are then cut out, and the pieces carefully numbered by notches; the box is now taken to pieces, and the actual building commences. This is done by placing the lower tier on boulder stones and wooden posts for foundations; then each succeeding tier is added, moss or hemp and tow being used between each layer to fill up all interstices. The walls thus completed, floors and ceiling of red or white pine boards are added, both ceiling and flooring generally being double, with a layer of earth between, and the whole is crossed with boards. The roofing generally consists of wooden tiles. In one corner of the room a large brick stove, similar to an English baking oven, is built, a chimney either of bricks (put loosely together without mortar) or of wood, is carried through the roof, and the house or hut is complete. Here the whole family lives.—*Builder.*

**BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.**—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills."—*Civil Service Gazette.* Made simply with Boiling Water or milk. Each packet is labelled—"JAMES EPPS & Co., Homœopathic Chemists, London."

**MANUFACTURE OF COCOA.**—"We will now give an account of the process adopted by Messrs. James Epps and Co., manufacturers of dietetic articles, at their works in the Euston-road, London."—*Cassell's Household Guide.*

## NOTICE.

*It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.*

*Correspondents should send their names and addresses, not necessarily for publication.*

*Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbot-street, Dublin.*

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*Terms for Advertising may be known on application.*

*We shall be glad to receive from any of our readers notes of works in contemplation or in progress.*

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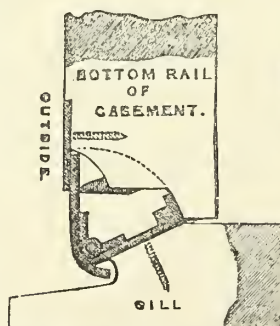
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COUNTRY ORDERS PROMPTLY EXECUTED.



# The Irish Builder.

VOL. XVI.—No. 346.

*Improved Dwellings for the Industrial Classes.*



HERE in Dublin little as yet has been done to lead to an improvement in the construction of dwellings for the artisan or labouring classes. Building speculators have, indeed, within the last few

years erected cheap houses—cheap and nasty—in more than one quarter, which afford more room for the families of the occupiers, but, on the score of comfort or health, they are far below a large number of the tenement houses so numerous in this city. Indeed, no small percentage of the houses where the working classes have been

housing themselves for the last quarter of a century are roomy and, to a degree, healthy, from the fact that these houses were once built and occupied by the Dublin nobility and gentry in the early part of the present century. Several fine old aristocratic residences in several streets north and south of the city are now occupied solely by the artisan classes, being let as tenements. In fact, whole streets of houses once occupied by single families are now inhabited by several families, from basement to attic. A few years' occupation, however, serves to complete the ruin of such houses. The landlord does little to keep them in repair, and the tenants often dispute with each other their supposed privileges and exemptions in the matter of keeping their frontages, halls, staircases, and back premises clean. There is little privacy under such a system, and the comfort that might exist under good management is rendered impossible. It is a system of "flats" improvised, but not the Scotch system of "flats," built to order. All the occupiers have to go to the one place of convenience, to the one water-butt, and use the one passage of ingress and egress.

What is wanted in Dublin and throughout Ireland are cheap, well-built dwellings not built in blocks, but single. The block system is only suited, we think, for very large cities like London where ground is dear, and rents consequently high; but in the case of Dublin, with a healthy suburbs at such a short distance north and south from the central part of the city, the cottage system is preferable. As the city enlarges in course of time, the huge block system may be necessary.

There are three or four industrial dwell-

ling companies in London who have within the last few years erected largo blocks of buildings to a degree comfortable, and which have turned out good investments. The Peabody Dwellings are fair samples of this class, and they let well. To the thickly-matted working and labouring population of London they have been a boon, but we question very much if such buildings were erected in Dublin they would be successful. Time might conquer the repugnance of our work people to live in blocks of buildings with an exterior so like a huge workhouse or barracks towering five or six storeys high.

We will give our readers an idea of the latest example of this class of dwellings erected by the "Metropolitan Association for Improving the Dwellings of the Industrial Classes." We believe they are the largest of their kind hitherto erected. They consist of five lofty blocks 67 feet in height, having a frontage of upwards of 320 feet in length, covering an area of more than an acre and a-half in extent. In addition to the basement, the buildings are six storeys in height, and the ground floor of the principal frontage consists of shops, two in each block, there being ten shops altogether in addition to the numerous dwellings which the buildings provide for private families and others. Each block is 45 feet in width, and between each a spacious area of 20 feet wide. They are built of yellow stock brick, the dressings and window heads and sills being composed of Portland cement and coke residuum. The seven blocks, which are upwards of 100 feet in depth, have flat asphalt roofs, which serve for the double purpose of drying and recreation. Along with the shops each block contains fifty-two tenements, consisting of one, two, and three-room dwellings, all having sculleries fitted with coppers and other domestic conveniences for washing and other purposes. The fifty-two tenements in each block consist of ten with three rooms, fourteen with two, and twenty-eight with one room, the entire tenements in the blocks being 260, and calculated to accommodate altogether a population of about 1,000 persons.

It is said the special feature in the internal arrangements of these buildings is that it gives each tenement comparative privacy, although several families are living under the same roof. A doubt, we think, may well exist on this point, as people will hold different opinions on what constitutes privacy.

Further, in respect to these dwellings, each floor landing has gates, which, when closed and locked, shut out all but two families. These new buildings are fire-proof, the floors being laid with concrete on iron and fire-proof joists. On top of each block there are two tanks which hold 250 gallons of water. Perfect ventilation is said to be secured by an air flue in the walls of every room, the air after passing about three feet along the flue having its outlet into the street and areas within the building. Another new feature is claimed for these buildings. Each tenement is fitted with gas, the tenants being charged with the gas consumed in equal proportions.

The other industrial dwellings built in different parts of London are also built in large blocks, but with no under shop, with stone stairs ascending, and the landings of each storey having balconies that afford a space for sight-seeing to the street. These landing places are recessed in the centre of

the blocks, and some of them afford a tolerable space for the amusement of the children. We must confess we are not in favour of the class of buildings we have described as an example to be imitated in Dublin; but the conditions of living in London to a great extent almost necessitate such dwellings for the working classes. And it must be allowed also in regard to London that these new dwellings are a great improvement on the homes that thousands of the working poor have to occupy at present in the foul back lanes and fever-breeding rookeries of London.

A bill for the improvement of agricultural labourers' dwellings in Ireland is now before Parliament, brought forward by Mr. Bruen. Clause 3 provides that every tenement registered under the act as an improved agricultural labourers' tenement shall be exempt from rates and taxes. Any tenement which is in good repair, which shall contain a sufficient number of rooms to accommodate the persons occupying it, and which shall contain proper sanitary arrangements, and which is occupied by an agricultural labourer, may be registered as an improved agricultural labourer's tenement. Landlords may apply to the collector of poor rates to register such tenements. The collector of each union is to make out a list of such tenements. Power is given to the boards of guardians to object to any tenement on the list, and the Commissioners of Valuation are empowered to appoint a fit person to examine the tenement and report whether it meets the requirements of the act. The appeal from his decision may be made to the quarter sessions. Rents paid for such tenements are not to exceed the valuation in the list or table of valuation.

Reserving until another opportunity the discussion of the *pros* and *cons* of this bill, we may say that there are no classes worse provided for than the agricultural classes of Ireland. A few partially successful efforts on a small scale have been made by some of our resident nobility and gentry to provide decent dwellings for the agricultural labourers, but in every county in Ireland the housing of the labourer is a disgrace to the country. How our landed proprietary can continue to look coolly unmoved at the majority of the wretched hovels that exist upon their lands, we are at a loss to know, except upon the uncharitable supposition that they do not wish to see the agricultural labourers lifted above their present wretched condition. A good home would give a man better thoughts and feelings, raise him in the moral scale, and set a better example to his children. The education of the labourer must begin first by providing him with a better dwelling, and it is the duty of the landlords to do this for those who work and spend their lives upon their lands.

In this city there is an ample field for philanthropic efforts. Capital need not be expended or given away for mere charity, but it can be expended for objects which are good, and which will confer blessings on many without entailing a shilling loss on the spender. The building of improved dwellings for the industrial classes is one of these desirable objects, and we hope before long to see such a movement instituted in Dublin. Land may be had on fair terms, and labour and building materials are in abundance, and may be had on very reasonable terms.



## THE GAS QUESTION.

It would be easy to find fault with the patched-up settlement which has taken place with regard to the gas supply. It is, to say the least, an unsatisfactory settlement, and we fear that before long our citizens will find their gas supply both dear and nasty. To make up the dividends the defects in the mains must remain as they are, and the loss incurred by leakage will be saddled in one shape or another upon the consumers. Plenty of sulphur and air may be expected, and soot as a consequence. In all conscience the supply of artificial light, even when we were supposed to have 20-candle gas, was dim enough, but what will it be in future when we have light ranging from 12 to 15-candle gas? Will the gas taster in the Corporation, we wonder, report upon the shortcomings of the gas manager elsewhere? A monopoly exists, in which bad management has been apparent. This incapacity is being perpetuated, and until it is put an end to the gas supply of the City of Dublin will not be likely to improve in point of quantity or quality. We speak upon broad public grounds of the opinions of corporate cliques or mutual admiration societies.

## AN AQUARIUM FOR KINGSTOWN.

It is reported, but with what degree of truth we are unable to say, that a company is in course of formation for the purpose of providing Kingstown with an aquarium, and that some arrangements are already made towards carrying the project into effect. Kingstown, we fear, will be hardly able to successfully compete with Brighton; but if she is in earnest, a very good aquarium can be established, and one, too, that might prove profitable as well as attractive. In establishing an aquarium, right men are wanting in the right place, of practical and scientific abilities, and not amateur dabbles, whose knowledge of aquariums consists of how to construct a little rock-work over handfuls of sand and pebbles, with a few creeping water-plants, and a score or two of newts, water-snails, pinkeens, and stickle-bats.

## TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville.*

If society permits thieves to thrive and live by plundering, it—society—is alone to blame. If an editor admits *non-original* matter into the columns of his paper, who is to blame? Why, the editor.

There exists in this city a paper which fondly imagines that it represents the interests of the Irish "sporting" world. Now, as a rule, with a supply of penny-dials to hand I do not make a practice of reading waste paper, but, happening to drop into my butler's hands the other evening, I picked up a scrap of the beautiful production above alluded to. My attention was attracted by a couple of verses, which informed the reader that the writer was, at present, a gentleman of intemperate habits, but who hoped to walk in the paths of virtue and abstinence when he had liquidated the water-rates, which event he looked on as likely to occur in the far distant future. This highly moral production was signed "A Ratepayer," and the editor of the valuable journal in which it appeared encouraged the great taxed with the remark that "the verses were very fair—up to their standard," and in fact did the "condescending editor" to some extent; but owing to the naughty public—who, it appears, pommel one another's naughty heads for the right of advertising in the "best medium in Ireland" (?)—they could not insert all the verses supplied by the "Ratepayer."

Did the "Ratepayer" hug himself?—did he shriek with delight?—did tears of mingled joy and sorrow do the rivulet game down his berated cheeks? when he remembered the verses were by him who had perpetrated the

"Curtain Lectures" of Mrs. Caudle. Poor Jerrold, or his executors, might

"Thank his stars that he is dead,  
And safely shut up in his marble tomb."

The editor of the *Sportsman* was, I imagined, a deeply-read man. In the days of his youth, prior to his affecting white hats and eye-glasses, when he followed the diverting occupation of spanking the juveniles of our city into the paths of morality and Greek grammar, he must have picked up Douglas Jerrold's "Tavern Heads," and might have recognised in the bright emanation of a "Ratepayer's" brain the ditty of the ex-brewery clerk, Mr. Whittaker.

The editor of the *Sportsman* may, however, turn up his Grecian nose at the impeachment of his knowledge of the works of one of our greatest satirists, and proceed, in the height of his editorial scorn, to wag his classic ears at my statement. He will, doubtless, elevate his heels to the corner of the mantelpiece, (as is the tradition of sporting journalists), and, taking a cigar between his lips, cry in a loud voice, "Give me the proofs!" Did he ever hear of Mahomet's expedient when the mountain, on Home Rule principles, declined his invitation? Perhaps he did. Now, I do not intend to try the frog and cow trick, as chronicled by Æsop, and compare myself to that mountain; nor do I desire to be considered *hil(l)arious* by affecting to think the great *Done-bar* analogous with the narrow-minded Mahomet; but if he—not Mahomet, but the other party—will seek me at the office of this paper, he can see the original of the little effort which he considers—aw, "puty fair."

One word at parting. If the editor of the "*Sportsman*" finds any further difficulty in obtaining original matter, I have three works—two prose, the other poetry—to dispose of, entitled, "Oliver Twist," "The Last of the Barons," and "Song of the Shirt." Address, William Schmidt, office of this paper.

The other day I entered a monster house which is situated in one of our greatest thoroughfares, and expressed my wish to be shewn a pair of gloves, which were speedily produced by the smirking attendant. I found, however, on attempting to draw them on, that they were about "a size" too small. I pointed out the fact to the shopman, and at the same time requested a larger pair, when I was coolly informed "They'd stretch." I, however, persisted in my demand, so the "young man" drew forth a pair which might have afforded ample accommodation to the chubby fist of Goliath of Gath. "Sir," said I, eyeing "the young man" sternly, "I don't as a rule wear my gloves over my boots." "Oh," was the assuring reply, "they're slightly big for you, sir, but I'll warrant they'll collapse with the *heat of the heend*." At last a pair of proper dimensions was procured "from the wholesale, sir," but turned out to be of a "drab" colour. I pointed out the fact to the "young man," who, with the indifference of a stoic, informed me "Nothin' was so genteel as drab," whereas I know perfectly, had I asked for "drab," I should have been told "green is mostly worn now, sir."

If, in making the above, I had complained that the kid was of inferior quality, why, in the name of Providence, should Mr. Smilesweet (the "young man") from behind the counter say "Sir" in a deferentially-impudent manner, and pretend that he does not hear my remark? Why, when I repeat the observation, does he inform me that "It's most unaccountable; they've sold forty-two dozen of these very Siberian kid gloves, and this is the first complaint they've had, and so far from their being costly at three-and-six they ought to be four-and-nine." "Ought to be!" indeed. Then, why aren't they, I should like to know?

Finally, why, when my gloves are duly encased in a sheet of flimsy straw paper, are they not given to me at once, instead of Mr. Smilesweet putting them aside, and saying in a lofty manner—"What shall I say next, Sir?" in a tone which signifies that if I do not expend a pound or so my custom is not

worth having? I, however, decline the invitation to further purchase, whereupon he immediately inquires—"Anything in shirts, collars, pocket-handkerchiefs, braces, draw—?" (in short, &c.). When I shake my head in a decidedly negative fashion, he lifts down a wooden tray, and taking therefrom an elaborate sort of running noose, composed of silk and flannel, informs me that it is "termed" the "University Cravat," which he (Smilesweet) considers an exceedingly sweet thing in cravats.

I glare at him, and flinging down a crown, cry "Change" in an unmistakably determined manner. Mr. Smilesweet first tosses the coin into the air, and, after catching it in its descent in a manner much in favour with thimble-riggers and soforth, brings it down with a thud on the counter—probably to test its quality, and probably to impress me with the fact that he is a thorough business man. In this latter design, however, his extraordinary energy defeats itself, for the coin rolls on to the floor, where he is obliged to rumple his "unmentionables" and lose his time and temper searching for the erratic five "bob."

At last his smirking countenance appears above the surface of the counter, and he calls "Cash!" in a loud tone. While Cash, who is a bilious-looking little boy, and horribly precocious at accounts, has gone for change to his sanctum, Smilesweet thinks I had better let him put me up the "University Cravat," but not concurring in that opinion, I get my change, an illegible bill of my purchase, and am bowed out by my tormentor.

That the shopmen of the present day are nuisances I have tried to prove; that they are awful liars, is too well known a fact. A somewhat comical story is told of a draper being frightened into telling the truth. Mrs. Siddons, absorbed in the consideration of professional matters, it is supposed, put to a draper the question, "Will it wash?" in tones that made the shopman gasp again, and in the midst of his astonishment, forgetting his character, he replied in the negative. He was probably rewarded with sundry silver medals in token of the feelings of his master on the occasion, with a recommendation to seek a nobler sphere for the exercise of his heroic virtue.

With reference to buying and selling, Charles Lamb, in one of his letters, says—"It irks me to think of poor Adam laying out his halfpenny for apples in Mesopotamia." "Irks," and why? Had "poor Adam" an insinuating shop-boy to deal with who simpered, across the mediæval counter of the "Garden of Eden Home and Foreign Fruit Depot," "Here's a sweet thing in Normandy pippins, Sir!!"

OLYMPUS.

## GAS IN NAAS—A METER INSPECTOR WANTED!

At a recent meeting of the Commissioners of Naas, they declined to settle Mr. Daniel's account for gas, the bill being for the sum of £49 10s., whereas last year the amount was only £31 19s. It appeared that in April, when the lamps ceased to be lighted, the meter registered 2,500 cubic feet. Some time after, although the lamps had not been lighted in the meantime, the meter, when examined by Mr. Daniel's collector, registered 7,500; later again, when examined by Mr. Tracy and the town clerk, 10,500; and later again, when examined by the same individuals, 10,700. Mr. Daniel's collector having been called before the Commissioners, in answer to a question from the chairman, said he could not account for the meter continuing to register after the gas had been discontinued, unless some malicious person had tampered with it. Mr. Tracey said he had opened the meter that very day, and it registered 750. The collector said it only registered 600. Mr. Tracey and the clerk then descended to inspect the meter, and on their return declared that it had gone back 150 feet! The further consideration of the matter was postponed.



## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

POET-STREET.—(second visit.)

MEETING our old friend and cicerone by appointment, we resumed our visit within, and out and about Poet-street.

"This parish, sir, is one of the largest, and its former church was considered in my early days the largest in the city. It had no architectural features externally worth noticing, though it has many associations that will not be forgotten. The building is on an old site, I believe, and in my memory it has been made famous by its connection with the celebrated Walter Blake Kirwan (Dean Kirwan), the great and eloquent preacher, C. R. Maturin, the Irish novelist and poet, who was for many years the curate of this parish, and who is buried here, as also the famous Jack Fitzgibbon, Earl of Clare and Lord Chancellor of Ireland. Numerous charity sermons were delivered in Poet-street Church by Dean Kirwan in aid of different institutions, the sums collected or subscribed amounting to several thousands, extending over a number of years. The works of Charles Maturin at the present hour are not known as well as they ought to be, but fifty years ago or less his name and works were on every citizen's tongue, and many visitors to our city were delighted to go and hear the poet delivering a sermon in his own church. Jacky Fitzgibbon, as the Lord Chancellor was often called, is buried at the south side of the churchyard wall under a plain tombstone. During his life he incurred the hatred of the populace, and many a fierce combat in court and senate took place between him and Curran and Grattan. He treated the efforts and opposition of the orators with a kind of supercilious scorn, but they paid his scorn back with a kind of compound interest in pungency and vehemence. Fitzgibbon after all, sir, was a very extraordinary man, his efforts for the Government on the Regency question brought him into prominent notice, and in preference to every other candidate, some more fitted, he was, on the death of Lord Chancellor Lifford, in 1789, raised from the position of Attorney-General to that of Chancellor. A melancholy sight was that of his funeral in the early days of the present century. The funeral procession was followed by the Dublin mob, and among them hundreds of respectable persons; and as his remains were being laid to rest, hooting, hissing, and execrations were to be heard outside the church here, and dead cats and dogs and other viler rubbish were flung into the churchyard. It was a sad exhibition of feeling, but party spirit ran so high at the time that these excesses were palliated by some. Fitzgibbon's death seemed to give a sort of satisfaction to many among the poorer classes, who looked upon him in life as an enemy to them and theirs, and their popular idols.

"Many members of noble and distinguished families are buried in this old church—among them an Earl of Roden and members of his house; bishops, clergymen, and military heroes. In the south gallery was placed a slab to the memory of Lieutenant-General Archibald Hamilton, an officer who saw some service in the reigns of William III. and Queen Anne, and who also fought at the siege of Londonderry. In the north gallery a tablet commemorated the services of two brothers—Lieutenant George Westby and his brother Edward; the former fell at the battle of Fuentes d'Honore, in Spain, in 1811, and the latter was struck down at Waterloo. This church was also the burying-place of the Dunboyne family, but for many years scarcely anyone of note has been interred in it.

"I could tell you a good many incidents connected with the career of Walter Blake Kirwan, but another opportunity may arise if I should have to pay a visit to other quarters of the city with which his name has been associated.

"On our former visit I told you that this street was remarkable in the last century for the number of barristers and attorneys that lived here, and other worthies connected with the courts of law. For several years into the present century it continued to be still the residence of many members of the law and of the medical professions. About the period of 1818-20 and later, among the barristers who resided in the street were J. W. Ardill, at 74, A. M'Mahon, at 41. William Walker, Proctor of the Prerogative and Ecclesiastical Court, lived here also. Among the surgeons and physicians were James Duggan, surgeon to the Reverend Arthur Jacob; Robert Healy, M.D., a practising physician; James Scott, a Licentiate of the College of Surgeons. Among the noteworthy merchants and traders—some of whom figured a little in the passing events of the day—were Bennet Brothers, coachmakers, at 8, Michael Murphy, ditto, at 59. Thomas Bennet was a member of the old City Guild of Saddlers. Toby Pim, a well-known merchant, lived at 67; a William Bradshaw, cabinetmaker, at 23; Richard Connell, ditto, at 54; James Connell, at 66; a relative, I believe, in the same trade lived at the same period at 46 Stafford-street—a street that afterwards became famous as the headquarters of the craft. John Wilkinson, a carver and gilder, lived at 19. Several paperstainers and decorators carried on business in this street early in the present century, but the trade migrated northward a few years later.

"Poet-street, like several other streets of the Unknown City, could boast, at the period of which I am speaking, of some good academies and schoolmasters. Abraham Newland kept an academy at 23, and J. R. Barber carried on another here for some years. Jonathan Hill, who taught here too, contented himself with simply announcing his profession as 'mathematician.' Where lived a lot of barristers it was to be expected there should be a wigmaker. A Mr. Thomas Flynn followed this occupation for some years in Poet-street, at 16. I do not remember at present any artists of note living in the street. One C. J. Fleming, an engraver, lived in this street for some years. I believe he was a relative of George Fleming, engraver, seal cutter, and copperplate printer, who lived for many years at 8 Essex-quay. There was in my young days a hotel in this street kept by James Meikle, at 20. He was a Scotchman, I believe. Mary Bacon, who lived at 11, carried on the business of a stamp staticner, and supplied the legal fraternity with their paper, bills, and other requirements. There was a noted provision dealer who lived for many years in this street, of the name of William Kent. He was an ultra-loyal man, and his doings stunk in the nostrils of the celebrated Watty Cox, who used to make a target of him in his *Irish Magazine*. Watty dubbed the cheese-monger 'Kent the Baconer,' and ridiculed him right and left.

"I mentioned on our former visit some of the theatrical associations of Poet-street in the eighteenth century, but it would take a little volume to record the memories connected with the street, together with the theatre that once existed here, rendered famous by the representations of Irish and English actors, actresses, singers, and musicians. The Masque of Comus was produced at Poet-street Theatre in 1741, Quin acting the part of Comus. This was one of the most brilliant seasons in Irish dramatic annals. Among the celebrities was Mr. Ryan. Mrs. Clive Duburgh prepared the music, Pasquini led the band, and the principal foreign element who executed the dances were Monsieur Laluze and Mademoiselle Chateneuf, assisted by others. Quin acted the part of Cato here also, and Othello. He afterwards proceeded to Cork and Limerick, and returned the following season to the boards of Poet-street Theatre. Subsequently, Quin went through a round of characters, Shakesperian and otherwise. In the same year the tragedy of Gustavus Vasa, or the Deliverer of his Country, written by our countryman,

Henry Brooke, was produced here, having been previously prohibited at Drury-lane Theatre, London. The play was acted for several nights with good success. Henry Brooke was a very popular man in his lifetime, and was the author of 'Farmer's Letters,' and of another play which was acted, styled 'Jack the Giant Killer.' He was the father of the celebrated Charlotte Brooke, the poetess, who died young and deeply regretted, about the year of 1793. Miss Brooke's 'Reliques of Irish Poetry,' being renderings from the Irish, are deservedly esteemed. Despite the restriction that was put upon the playing of Gustavus Vasa, Henry Brooke netted £1,000 by the transaction, when publishing the play by subscription. Quin and Cibber were a great attraction for some time at Poet-street Theatre, but Duval, who conducted Smock-alley house, used every exertion to smash up the former by enlisting all the superior talent he could find. Duval secured Garrick, Peg Woffington, and Mr. Gifford, and more than successfully competed with his rival, for the tide of success began to flow in favour of Smock-alley, which reigned triumphant for a while at least. The rivalry between Dublin theatres at the time was most remarkable and fierce. Properly speaking, the city was not able to support throughout the year more than one theatre, yet jealousies were so strong, theatre after theatre succeeded, until three or four, in the space of five years, cropped up, and others continued to be erected on the ruins of former ones.

"Thomas Sheridan, the father of the celebrated Richard Brinsley Sheridan, acted both on the boards of Poet-street and Smock-alley Theatres, and was a manager as well as actor. By his efforts he purified the stage of much of its abuses, but often had to contend against infamous opposition. His independent spirit would not brook dictation or insult, and he had the mortification of seeing his theatre in Dublin gutted and destroyed, not by the mob, but by a faction who deemed themselves gentlemen. It was in January, 1742-3, that young Sheridan first acted the part of Richard III. in Smock-alley Theatre. Although the name of the young performer was not named except 'By a Young Gentleman,' yet his success in this character, and in that of Mithridates in the tragedy of that name written by Lee, was so great that he was obliged to throw off his disguise, and in his second performance of Richard his name was announced. Sheridan subsequently acted in several Shakesperian characters, and played Cato for a number of nights to splendid audiences at Poet-street Theatre.

As time wore on the noted actors disappeared from here to the banks of the Liffey. I cannot follow them through their vicissitudes and wanderings from Poet-street to Smock-alley, from Fishamble-street to Capel-street, and finally to Crow-street. These matters must be related if we should ever visit the spots to which they are more particularly attached. I have not told all or nearly all what might be told of this quarter, but it must suffice for the present. The incidents are many, though the memories are fading, but there are some recollections connected with Poet-street that shall remain ever green in my heart while it continues to beat.

The shades of the evening fell as we turned our faces towards home and shook hands with the Oldest Inhabitant.

HEALTH OF THE CITY.—The Registrar-General informs us that "the deaths registered during the week ending 9th inst. represent an annual mortality of 33 in every 1,000 of the population, by the Census of 1871. In London the death-rate was 21 in every 1,000 of the estimated population, in Glasgow 26 and in Edinburgh 23. The number of deaths from zymotic diseases registered during the week was 43. Of these 16 were referred to fever (9 typhus, 6 typhoid or enteric, and one simple continued fever), 13 to scarlet fever, 4 to croup, and one each to measles, influenza, and diarrhoea."



### PAGANINI'S VISIT TO DUBLIN IN 1831.

THERE are many hale and healthy play-going citizens who remember the sensation caused by Paganini's visit to Dublin in 1831. A marvellous performer on an instrument which is a favourite among all classes of our countrymen, it was to be expected that his welcome would be a good one. It was a great pity that the man's inherent and incarnate selfishness and parsimony should have been linked so insolubly with the practice of his art, but Paganini, though a great miser, was not the only avaricious musician who thought he never could grasp enough. Before his day and since we have had several musical notoriety of both sexes who could enthral by music and song, but as human beings with human sympathies they were "of the earth earthy." Mr. Henry Phillips, in his "Musical and Personal Recollections," has given us some particulars of his first appearance in London and Dublin, which are worthy of reproduction. Speaking of London our author says—"For a considerable time the musical world had expected him, but the public at large did not appear to have received the impression that had been given us of his extraordinary talent. His first concert was announced at the Italian Opera House, in the Haymarket. Nicholson, the flautist, and I went together to the pit. The concert was indifferently attended, and in itself proved a very meagre affair. In fact, it was a mere vehicle for the introduction of the lion of the evening. When the time arrived for the first concerto, all eyes were turned towards the spot where the conductor had gone off, evidently to usher him in; and in a few minutes in stalked a ghastly figure, thin, rather tall, pale as death, with black glossy hair flowing over his shoulders, long arms and bony fingers. He seemed like something unearthly gliding almost to the middle of the stage. Altogether, the effect was so strange, so unreal, that a shudder positively ran through the audience. It soon became evident to us both that nothing he did was left to chance—every action, every look had been deeply studied: in a word, he was an excellent actor. For a few moments he stood before his breathless audience, as if thinking what he should play, then he slowly placed the violin under his chin as he deliberately raised his bow and let it rest on the strings, as if meditating how to proceed. Having apparently made up his mind, he turned to the orchestra, and with a gentle inclination of his head gave the signal to commence. He had not executed many passages before a burst of acclamation came from the audience—an expression of wonder and amazement at the tones he produced, and his wonderful flight of execution. Nothing moved by the applause, he proceeded. At the termination of the first movement another enthusiastic demonstration was made, but not a muscle moved in his rigid countenance, he neither expressed pleasure nor anxiety, but steadily went on to the end of his concerto, when he slightly bowed, and, with the same ghost-like movement, left the stage. . . . His fame immediately spread like wild-fire, and thousands thronged the doors wherever his name was announced."

It has often been doubted whether Paganini possessed any real knowledge of music, and that his wonderful manipulation was not owing to a kind of trickery, but Mr. Phillips and others afford evidence that Paganini was a sound musician, and had acquired a substantial knowledge of his art. There is one thing clear, however, that the Italian musicians had a very substantial opinion of his worth, as his usual demand for one or at most two concertos was three hundred guineas, and so painfully penurious and exacting was he, he would insist upon his terms to the last shilling.

In the autumn of 1831 a musical festival was held in Dublin, and Paganini was engaged at a most exorbitant sum. Sir George Smart conducted this festival, but we will let

Mr. Phillips tell of the visit and surrounding of the single-stringed musician:—

"Paganini's habits of seclusion gained him much of his notoriety, for he endeavoured to create a mystery about all he did. No one seemed to know how he travelled or where he went to, and, when wanted, he appeared to spring out of the earth at a call. Thus he arrived in Dublin, and no one could ascertain by what vessel, which gave rise to a vague idea that the *Flying Dutchman* might have wafted him across the Channel. Then where were his lodgings? No one knew. He was not at any of the principal hotels. Oh, no, that would have been too extravagant; he had secured apartments in some obscure part of the city where no one could find him out, and his presence was not manifest until the evening of the first concert, when he entered the stage-door of the Theatre Royal, where the concert was to be given, and immediately ordered an apartment to be got ready, and the room to be perfectly darkened. Into this he went, and paced it up and down, playing snatches of his concertos, until the time arrived for his *début* before a Dublin audience. The theatre was crowded to suffocation. The Lord Lieutenant and his suite occupied the state box in regal style. All the *élite* of Dublin appeared in the dress tier. As Paganini, led on by Sir G. Smart, glided in his ghost-like fashion to the centre of the stage, the uproar of applause was terrific—an uproar succeeded by the most breathless attention and silence, so great that a feather might have been heard to fall. The action before commencing, as described in London, was gone through in precisely the same methodical manner, but this seemed to the restless spirit of an Irish audience to occupy so long a time that the bow had not rested on the string many seconds when a stentorian voice shouted from the gallery, 'Well, we are all ready.' The house was convulsed with laughter; round after round of hysterical mirth rang through the building. Paganini stamped with rage, and, turning to Sir George, exclaimed, '*Qu'est ce que c'est?*' Sir George tried to explain, which seemed to make matters worse, that Paganini, muttering some dreadful imprecations, left the orchestra. A considerable time elapsed before he could be prevailed upon to re-enter, but at length, having done so, he produced the usual effect, and astounded everybody. The next day one heard nothing but, 'Ah, sure, have you heard Paganini, och murder! and his fiddle.'"

The musical festival of 1831, in a financial point, was a failure, for, coupled with the exorbitant demands of Paganini, large sums were paid to vocalists and instrumental performers. The wealth and fashion of Dublin, even had it evidenced a much greater patronage, was not at the time sufficient to ensure success where demands upon the part of musicians were so monstrous. Then, as well as now, the pit and galleries were more constantly filled, and, like the third-class carriages of the railway system, were better sources of income in the long run than the dress circles.

Mr. Phillips continues:—"A general inquiry immediately after the meeting was, 'Has Paganini gone?' 'Yes, he has.' 'What vessel did he sail in?' No one could tell. He had vanished into air, as usual! Again all became mystery, until we heard his name being announced for a concert in Edinburgh, or Rome, or at such extreme distance that it always defied calculation to know how he had managed to get there in time."

A few words and we will take leave of our musical subject. Nicholas Paganini was born at Genoa in 1781. At the age of eight years, it is said, he played at a church in the above city, and at public concerts. He was afterwards for some time under the tuition of Costa, and received lessons from the composer Pauer. He was subsequently invited to Lucca by a songster of Napoleon I., to assume the direction of Court concerts. After this he made a tour through Europe, followed by his visits to London and Dublin. His great

thirst for gold made him at one time demand £1,000 for three performances, but these outrageous terms were, of course, rejected. Paganini's selfish callous and eccentric manner made him several enemies. At Vienna he was charged with having murdered his wife; but he met his assailant, and demanded proof of his ever having a wife. He then was accused of stabbing his mistress: this charge he also refuted. At his death, which took place at Nice in 1840, he left a fortune of upwards of £200,000, which devolved upon his son, sisters, and mother.

Paganini's playing upon one string certainly savoured too much of a species of sleight of hand, hardly creditable to a musician who, judging from his credentials, could have done much better with four. A marvellous performer he was, in sooth, but he died leaving a name unlinked with one public virtue. He wakened emotions and sympathies he could hardly feel himself, and, while he unconsciously lifted the souls of men in a heavenly ecstasy of music, his own heart was centred in self and mammon.

### THE RUIN AND RE-BUILDING OF NATIONS.

[Being Extracts, with Notes, from "An Essay towards Preventing the Ruin of Great Britain," by George Berkeley, Bishop of Cloyne. First printed in London, A.D. MDCCXXI.]

THE many abuses pointed out and condemned by George Berkeley in the eighteenth century exist in spirit if not in form, and though we have improved in several directions, yet it is clear, despite the advance of education, the morality of the nation is very low. Honest and frugal modes of industry are indeed very scant; everything is done or attempted to be done on a gigantic scale, and is heralded with the usual accompaniments of deception. Stock-jobbing is reduced to a science in which the business man can see no harm, no matter how his profits are acquired. Conscience is nothing now-a-days if it is not elastic; if it lacks elasticity, the professor is looked upon as a poor creature—a well-meaning individual perhaps, but unfitted to go "on 'Change." Everything is sacrificed that stands in the way of money-getting, and religion is utilised if it can help the seeker to advance his interests. Churchmen as well as laymen have turned stock-jobbers and money-lenders, farmers and builders, and are not content to sermonize in the pulpit for the benefit of their congregations, but have begun to sermonize on a large scale in publications and books for their individual profits. The Bible is becoming an everlasting fountain of worldly wealth for some spiritual speculators, who certainly do not practise what they preach. Alas! religion is becoming a business and a lucrative profession. Berkeley witnessed much, and anticipated further evils; but we question if he could have ever dreamed of such a state of matters as now exists in part standing naked before the world, and in part thinly veiled, and defended by a species of logic as false as falsehood itself.

Berkeley goes on to observe:—

"The South Sea affair, how sensible soever, is not the original evil, or the great sense of our misfortune; it is but the natural effect of those principles which for many years have been promulgated with great industry. And as a sharp distemper by reclaiming a man from intemperance may prolong his life, so it is not impossible but this public calamity that lies so heavy on the nation may prevent its ruin. It would certainly prove the greatest of blessings if it should make all honest men of one party; if it should put religion and virtue in countenance, restore a sense of public spirit, and



convince men it is a dangerous folly to pursue private aims in opposition to the good of their country, if it should turn our thoughts from cozenage and stock-jobbing to industry and frugal methods of life—in fine, if it should revive and inflame that native spark of British worth and honour which hath too long lain smothered and oppressed.”

“Though it must be owned that little can be hoped if we consider the corrupt degenerate age we live in, I know it is an old folly to make peevish complaints of the times, and charge the common failures of human nature on a particular age. One may nevertheless venture to affirm that the present hath brought forth new and portentous villainies, not to be paralleled in our own or any other history. We have long been preparing for some great catastrophe; vice and villany have by degrees grown reputable amongst us; our infidels have passed for fine gentlemen, and our venal traitors for men of sense who knew the world. We have made a jest of public spirit, and cancelled all respect for whatever our laws or religion repute sacred. The old English modesty is quite worn off, and, instead of blushing for our crimes, we are ashamed only of piety and virtue. In short, other nations have been wicked, but we are the first who have been wicked upon principle.”

[How true the above paragraph holds in its application to the present state of public society. Verily we are preparing now for some great convulsion and excesses perhaps eclipsing the first French Revolution. Pauperism and crime are still rampant, notwithstanding the vigorous administration of the law. It is a folly to think we have succeeded in keeping crime under. We are now legislating in favour of drunkenness instead of temperance, by affording greater facilities to the spirit traffic, and drink is the direct cause of two-thirds of the crime and misery of Great Britain. Our principal jails and prisons are full of convicts convicted of the worst of crimes, and who before sentence were habitual offenders. We incarcerate our worst criminals for periods of penal servitude extending from seven to fourteen years, and we allow them tickets of leave after a servitude of three, or five, or seven years. Even some of those sentenced for life, after the lapse of a few years, are allowed out once more to prey upon society. The public generally are in complete ignorance of the facts in relation to the distribution of our criminals. Were all those who are convicted and sentenced to penal servitude during seven years detained in prisons, it would be difficult to say how many thousands of the population they would number; one thing is clear, that our present prisons would not contain a third of the number. Yearly, too, there are hundreds of men guilty of base crimes who are allowed to escape, and compromises between prosecutors and defendants are acceded to by our magistrates. Rich families often escape scandal and exposure, where the poor, on the other hand, are prosecuted with the utmost rigour of the law. Public spirit now, indeed, is often made a jest of, and our infidels are reckoned not only men of great scientific attainments, but perfect gentlemen. As to the modesty of the age, the less that is said the better. In spirit we have only one sex in these days, though two genders in flesh and blood still exist. Let us not try to disguise the fact, if ever a people in the history of the world were wicked upon principle, we are wicked, and seem to glory in our wickedness. The following words of Berkeley, addressed to the British people in the eighteenth century might have been written for the present hour:—]

“The truth is, our symptoms are so bad that, notwithstanding all the care and vigilance of the legislature, it is to be feared the final period of our state approaches. Strong constitutions whether politic or national, do not feel light disorders; but when they are sensibly affected, the distemper is for the most part violent and of an ill prognostic. Free governments like our

own were planted by the Goths in most parts of Europe, and, though we all know what they are come to, yet we seem disposed rather to follow their example than to profit by it. Whether it be the order of things that civil states should have, like natural products, their several periods of growth, perfection, and decay; or whether it be an effect, as seems probable, of human folly, that industry produces wealth, so wealth should produce vice, and vice ruin.”

[Our great philosopher and Irish prelate concludes his essay with the following prayer, which we re-echo, though we fear if the condition of society does not mend, its latent rottenness more so than its open corruption, will bring about sooner than may be expected the state of matters which he hoped and worked to advert:—]

“God grant the time be not near when men shall say, ‘This island was once inhabited by a religious, brave, sincere people, of plain, uncorrupt manners, respecting inbred worth rather than titles and appearances, assertors of liberty, lovers of their country, jealous of their own rights, and unwilling to infringe the rights of others, improvers of learning and useful arts, enemies of luxury, tender of other men’s lives and prodigal of their own, inferior in nothing to the old Greeks or Romans, and superior to each of those people in the perfection of the other. Such were our ancestors during their rise and greatness, but they degenerated, grew servile flatterers of men in power, adopted epicurean notions, became venial, corrupt, injurious, which drew upon them the hatred of God and man, and occasioned their final ruin.’”

[No right-thinking person can dispute for a moment that the British Empire contains within itself and fosters the unholy and unwholesome elements that are sufficient to cause her downfall, despite her advance in learning and the useful arts. It cannot be said with truth that we are a truly religious people, our numerous churches and church “restorations” notwithstanding. Are we not great respecters of titles instead of moral worth, and while asserting our own right we are continually making aggressions on the liberties of others. We have certainly improved, leaving out the useful arts, but we are lovers instead of enemies of luxury. Luxury and epicurean tastes constitute no small portion of our great national sin. In war we may sometimes be prodigal of our own lives, but in the pursuit of trade and commerce we are most tender of the lives of others, and for the most part are indifferent to the lives of those by whom our fortunes are amassed. We treat our fellow-man as a mere machine, and supersede his services by a machine when we can, not for his particular good but our own profit. Alas! we are inferior to the old Greek and Roman in much that contributes moral grandeur and greatness, and unlike them we build but little for credit sake or posterity. We are an intensely self-opinionated and egotistic people, and more than any previous century we are continually sounding our own praises and glossing over our defects. Unless we earnestly resolve to be honest and truthful in all our trading and commercial transactions, and mind our own internal affairs, foreign enterprise and influence will certainly undermine our power and leave us high and stranded like a wrecked vessel on the sea shore. The British Empire at home, great as it is and has been, is only represented, it may be said, by two large islands, which are small compared with other nations. Though our isolation may be our strength while we are united and free of corrupt manners and habits, yet our isolation, taken in conjunction with our present weakness and want of cohesion, leaves great doubts as to our power of withstanding any heavy shock or strain from without. It matters not how the blow may be dealt, its effects would be equally fatal to our supremacy. Decisive blows could be dealt to our trade and commerce without the

shedding of one drop of blood. A nation may be in friendly relationship to one or more nations, but diplomatic courtesies are no safeguards. The friendly relations which we would like to see existing are those that should exist between class and class, and party and party, and capital and labour within the State. A civil war at present rages from one end of Great Britain to the other. The combatants are not armed with the weapons of war, yet the strife is quite as deadly and disastrous. The conflict of labour and capital may eventually cease without doing a lasting injury, yet there exists the danger that a great civil is possible, and, through the wisdom of the legislature, if possible, it ought to be averted. With the aid of extracts from Berkeley we have pointed out the many abuses that beset society in these kingdoms, and the reforms that are absolutely needed to prevent the ruin and powerfully contribute to the re-building and consolidation of the nation.]

(The End.)

## PUBLIC RIGHTS AND PUBLIC NUISANCES.

### OUR PUBLIC MARKETS AND SLAUGHTER-HOUSES.

#### FIFTH ARTICLE.

THE markets and private slaughter-houses of this city have been always a scandal to our local government. At the close of the last and at the beginning of the present century the state of our public markets—meat, corn, vegetable, fruit, and others—called forth severe condemnation at the hands of native and foreign writers. Improvements were attempted early in the present century, but they were begun on the wrong principle. Want of sufficient room, lack of proper drainage and ventilation, and an almost total absence of inspection, signalled the rule of all our markets.

Hely Dutton, in his “Observations on Mr. Archer’s Statistical Survey of the County of Dublin,” published in 1802, thus writes of some of our markets:—“We were led to expect some years since that Castle Market was to be made superior to any market in Europe, and that the present one was only temporary. I since understand that the idea has no foundation, and that the present wretched, ill-contrived one is to remain. . . . New Market also possesses every defect of Castle Market. Patrick Market is still worse, as the danger of floods is to be added. Some years since Sir Thomas Blackhall built a very convenient market in a more healthy situation, but, for what reason I cannot tell, the butchers seem to prefer their dirty situation, and the new market is almost uninhabited.” And it was so fifty years afterwards.

Mr. Dutton considered the “new market near Britain-street an exceedingly neat, small market . . . , but has the defect of every other market—want of room. Clarendon Market is also well designed, but half of it is untenanted.” Possibly, when Cash’s Market was first constructed in Britain-street, it looked neat, but it has long since been deserted, and in our own memory it never was kept clean, nor was it well conducted. On Saturday nights the buyers were actually wedged together, and could hardly pass each other for lack of room.

Upwards of a quarter of a century ago the butchers began to remove from the Britain-street market, and set up their stalls in the adjacent streets—a movement that should never have been permitted. The evil would have been small if they had only sold meat at their new premises; but they converted their back shops and yards into private slaughter-houses,—in fact, butchers in our open thoroughfares might be seen at times killing sheep, pigs, and heifers behind a screen of canvas in their front, and sometimes without any screen at all.

A few years ago our Borough Engineer, we believe, published some reports on Public Abattoirs, at the instance of the Corporation,



and to satisfy the public that their wants were going to be attended to; but licensed private slaughter-houses continue, with all their abominable evils. Several of the towns and cities of England and Scotland have their public abattoirs; that of Edinburgh, from an examination, we can pronounce a well-regulated and admirable public abattoir. There can be no doubt that in a few years London will not have a private licensed slaughter-house in her midst.

On the broad grounds of public health, and on the score of economy, there can be no second question of the superiority of public abattoirs over private slaughter-houses. This superiority was acknowledged and acted upon in Paris as far back as 1810. We have ourselves visited the markets and slaughter-houses of Paris, and we can bear evidence as to cleanliness and good management. The condition of some of our Dublin markets and slaughter-houses is absolutely sickening to witness, from lack of drainage and water supply.

A butcher's trade is one that calls for a daily inspection on the part of inspectors of nuisances acting under medical officers of health. The house where he slaughters should be provided with an impervious pavement of good paving stone or hard bricks set in cement, or of asphalt, laid on four or five inches of concrete. The drains ought to be constructed of glazed stoneware pipes. In the matter of ventilation, it should be as free as possible, and the walls should be frequently lime-washed. A good supply of water is, of course, absolutely necessary, and it should be constant. It would also be advisable that the tap should project from the wall over the highest point of the floor. In private slaughter-houses an attention to the above provisions is imperatively needed, in the interests of the public health, and indeed of the health of the individual butchers themselves and their families. The blood of the animals slaughtered should not be allowed to run into the drain, but vessels should be provided. In public abattoirs and in some large private slaughter-houses the blood is saved; but in many small ones it is allowed to run waste. Butchers, too, have an old habit of tying up their dogs in their slaughter-houses at night. This is a habit that should be put a stop to; it is not only a filthy but a dangerous proceeding, as it affords facilities for the spread of entozoic disease.

The licensing system in respect to slaughter-houses in Dublin is as loose as can be. In London at present the licences are granted annually by the magistrates; and the local authorities may, if they choose—and do occasionally, upon the advice of their medical officer, who makes an inspection of all the slaughter-houses once a-year,—oppose either the renewal of old licences or the granting of new ones. Here in Dublin, where the shop is not actually used as a slaughter-house, a small yard at the rear is used, with the only entry for the animals through the shop or hall, with houses built all round, and where ventilation is impossible. It is most difficult and almost impossible to give a thorough inspection of private slaughter-houses, managed as they are at present; but this difficulty should not deter the authorities from assisting in a weekly inspection of every private slaughter-house, no matter where situated. The sooner, however, private slaughter-houses are abolished, the better will it be for every interest.

The cow-sheds or cow-houses of Dublin are in general kept in a very bad and tumble-down condition. Cow-sheds in the London metropolis, where milk is sold, are subject to the same conditions as to inspection as slaughter-houses. We are not aware that the cow-houses and dairy-yards in Dublin are visited regularly by the sanitary inspectors. It is their duty to do so, and it is also the duty of the medical officers of health to make an occasional inspection. Cow-sheds require to be paved and laid in concrete, similar to slaughter-houses. Good channels are needed to allow the water to run off so that there shall be no pools. The mangers

of cow-sheds should be lined with cement. Above all, good ventilation is necessary. It has been recommended (and judiciously, we think) that each stall should have a louvred window; and, if there be a loft overhead, the floor should be taken off over the heads of the animals for about 3 ft. all along, and the tiles of the roof should not be pointed. It is far better to have no loft at all. The cubic space allotted to each cow should be about 1,000, and not under 800, cubic feet.

The water supply should be unexceptionable in quality, for fever has often been clearly traced to water used in connexion with cow-sheds and dairies. Water is often used that has been lying for days in tanks, and taken from wells contaminated with sewage matter. Underground tanks should not be permitted. Mangers ought to be constructed to incline in the opposite direction to the channels, so that the water thrown into the manger at the upper end may run down it, and, when above a certain level, overflow, so as to run into the upper part of the channel, and then down it into the drain. This provision ensures that every time the cows are watered the channels will be washed. The dung-pit and the grain-pit need to be properly drained, and the manure and refuse matters removed frequently. The same necessity exists in respect to stables; and the sanitary authorities have power under the Sanitary Act to insist that all refuse matter be removed as often as is needed. In Dublin it is plain that few indeed of our cow-sheds fulfil the conditions above stated, and the fault mostly rests with the local authorities.

We have not exhausted the subject of wants and nuisances in connection with our slaughter-house system, or the conduct of our public markets and dairy-yards. We will resume the topic in connection with the inspection of other trades that receive little or no attention at the hands of our local bodies in the capital and in the provinces.

#### BELL-FOUNDING IN IRELAND.

We have much pleasure in recording the fact that the largest bell ever cast in Ireland has been completed in the foundry of the Messrs. Thomas Sheridan and Co., Church-street, in this city, and would recommend all lovers of beautiful native workmanship to visit the establishment and see the bell, before its removal for erection at Roche's Point, Cork Harbour.

The subject of fog signals for this, perhaps one of the finest harbours in the world, has long been before the public, and in common with other objects of utility for Ireland, has had as much delay as red-tape could reasonably give to it; but it is gratifying to know that the moment the Commissioners of Irish Lights succeeded in overcoming official routine, they commissioned Messrs. Sheridan and Co. to cast a bell, from the designs of their engineer, that would be not only an instrument of great practical utility, but, as the event has shewn, a specimen of meritorious workmanship.

The bell was tested on Wednesday last by John S. Sloane, Esq., M. Inst. C.E.I., the engineer to the Commissioners of Irish Lights, who, accompanied by their worthy secretary, William Lees, Esq., whose musical taste is well known, pronounced the note to be B flat. These gentlemen expressed their approval in the highest terms, and to these we may add that it is seldom a casting of such magnitude has turned out so truly correct, almost as if it were fresh from some gigantic lathe. It weighs three tons.

#### THE OPENING OF THE CHELSEA EMBANKMENT, LONDON.

This work, which completes another instalment of the Thames Embankment, was opened on Saturday by the Duke and Duchess of Edinburgh, and was signalised by a grand ceremonial. The Chelsea Embankment is upwards of three-quarters of

a mile long, and was commenced in August, 1871, from the designs of Mr. Bazalgette, and under his superintendence, as well as of Mr. Grant, the assistant engineer of the Metropolitan Board of Works. Mr. Webster was the contractor, and the cost, exclusive of compensations for property absorbed, was £134,000. The embankment wall is hammer-dressed, and the parapet wall is rougher and bolder in outline than at the other embankments on the river. The foundations of the river wall owing to the favourable conditions of the soil at this place, are only carried down four feet below the low water of spring tides. The line of the river wall is adapted to make the channel of an average width of 700 feet, and a roadway is provided 70 ft. in width throughout, which has been planted on both sides with trees. The Chelsea Embankment is the third which has been constructed since 1862, when the Thames Embankment Act was passed. With the exception of a quarter of a mile between Millbank and the Houses of Parliament, a continuous line of river wall exists on the north side of the Thames from Blackfriars to Battersea Bridges, a distance of four miles and a quarter. Before the Thames can at all present a respectable appearance in keeping with the importance of the city it passes through, its embankment must be completed on both sides from above Chelsea to London Bridge.

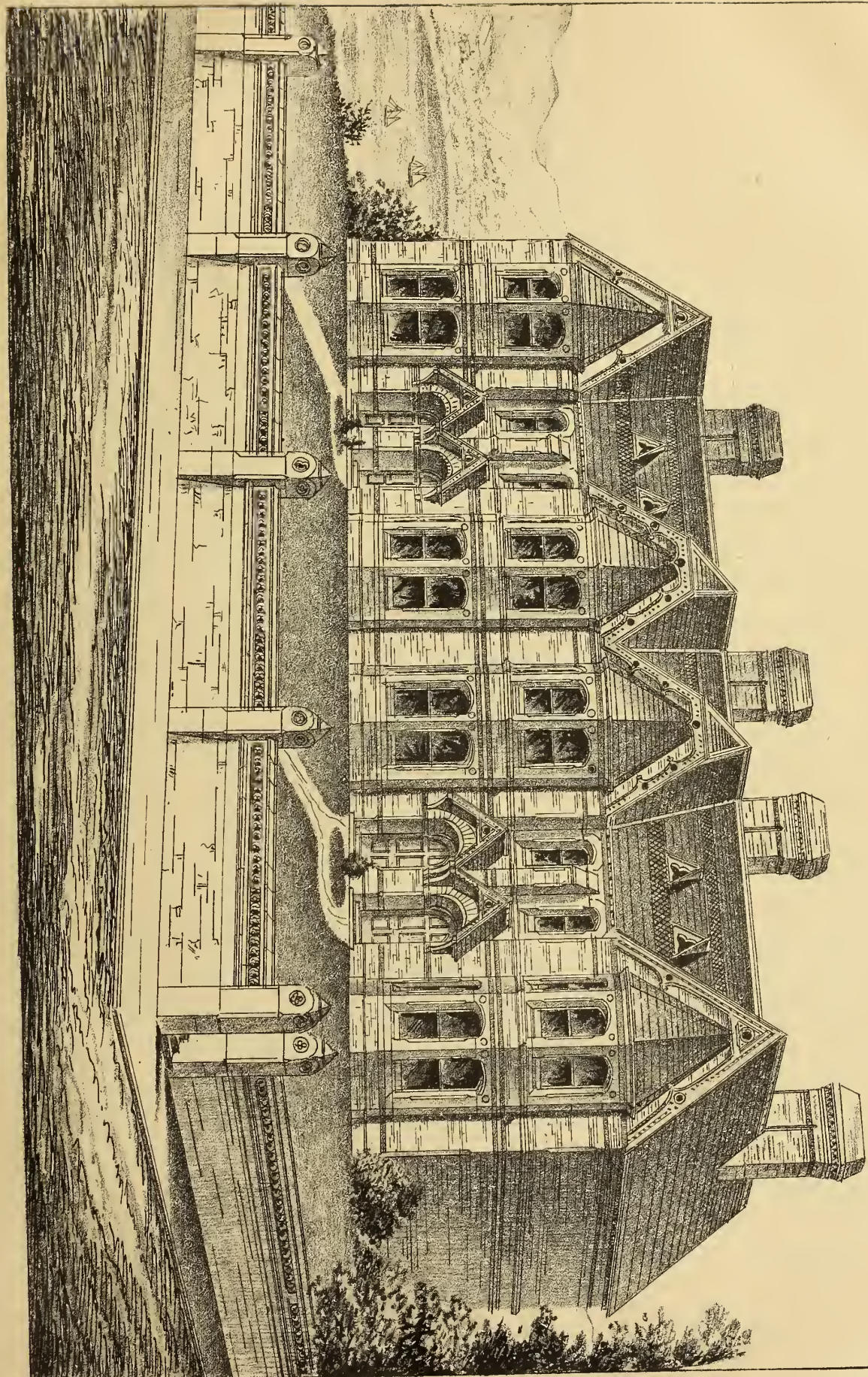
#### CAPITAL versus LABOUR— EXPERIENCE IN ENGLAND.

SIR,—Will you kindly permit me, through the columns of your valuable journal, to call public attention to the above subject? If I were contented to take a merely superficial view of the state of society, I should probably form a very low estimate of the moral condition of mankind; but if I am careful to make a minute acquaintance with the past, and contrast the past with the present, I shall discover such astonishing marks of progress, of advancing intelligence and moral development as cannot fail to convince us that mankind is rapidly advancing to a state of perfection and happiness. Seeing, then, that so grand and glorious a future is before us, if I am careful to inquire what is the great distinguishing feature of our times over all previous ages, I shall find that it consists in the general adoption and development of the principle of association. I find that workmen are not now as formerly disintegrated or split up into small communities waging incessant war against each other, but on every hand there is more distinct recognition and a more intelligent appreciation of the simple fact that in the greatest good of all is contained the greatest good of each. Hence men even uncared for, or unenfranchised working men, have learnt that there is a power for good in union which cannot be matched by mere individual action.

The necessity to inaugurate a better state of things in the relations subsisting between Labour and Capital than that which obtained sway for a generation or more, compelled working men to combine, and their increased mental and moral culture has enabled them to subordinate their apparent individual interests to the general good, and develop a power of organization which has at length put the mammon worshippers of this country in the greatest possible trepidation. I see that trade organizations of the working men are an effectual means of promoting this not arbitrarily, but in harmony with the laws of political economy. Hence the contemptible alarm felt by those base materialists who would that matter should reign over mind, that "labour should be subordinate to capital," which means that gold should maintain a base supremacy over humanity.

The relations subsisting between labour and capital have for some time been in a





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transition state, and in the various conflicts in which the two have been engaged, the cause of labour—that is humanity—has kept steadily triumphing over capital, which is mere matter; and no inconsiderable proportion of these inestimable victories are directly attributable to the well-directed and persevering efforts of trades unions.

Need I refer to a quarter of a century back, when I came to England for the first time? The long hours and exhausting toil that used to obtain the sway; the scanty wages, the petty and humiliating annoyances, the intimidations, and the terrorism exercised over working men by a class of task-masters and Jerry Builders, who delighted in the name of masters, and who in that capacity—in days that are happily departed, never to return—oftentimes made the life of the working man one of incessant drudgery, beginning work at four o'clock in the morning, working till eight o'clock in the evening—systematic overtime, which has broken down the constitution of many a brave man.

As a stone mason, I visited many of the principal seats of industry in Lancashire, and I found generous employers; this I admit most gratefully, that all men who moved in the more affluent circles in the past were not bad—it was the system that was bad. By the agency of trades unions, they had to enact laws for their own protection, which the legislature could not justifiably interpose to secure for them.

Without pursuing this part of the subject, I may just remark that I have not forgotten to what I owe the Saturday half holiday, notwithstanding that that movement had the friendly countenance of noble names; I have not forgotten to what I owe my prompt payment when my week's work is done. Many of my brethren can well remember having to wait till ten or eleven o'clock on a Saturday night about public houses for their wages, and their month's pay in the shape of tickets on tommy shops, kept by the employers or their brothers-in-law, where the workman was recommended to purchase inferior articles of food at a high marketable rate. Trades unions did away with this system. I have not forgotten many a rise in wages which we have secured. We have not forgotten to what we owe the suppression of the obnoxious blood-money and chasing system, under which many a strong constitution was broken down and hurried to an untimely grave. We have not forgotten to what we owe the recently-acquired nine-hours' boon, by virtue of which we are enabled to enjoy the recreation afforded by the parks, and the mental pleasures afforded by the libraries which, either by rate or munificence, are provided for our enjoyment. And, above all, the shortening of the hours of labour enables us to enjoy more of the refining and elevating pleasures of social and domestic intercourse.

I should like, however, on this interesting occasion to say a word or two on the moral aspects of this question—"Capital and Labour." I read in the newspapers of the parson so far stepping beyond his usual pulpit polemics as to venture to address people on this great social topic. I am sure to hear him invite them to admire the wisdom of Providence in having secured that a constant supply of hewers of wood and drawers of water should be maintained on earth, by having ordained that there should be capitalists willing to employ labour, and labour willing to be employed.

The poor man seems always to be oppressed with a vague fear that the result of elevating the working classes from a dependent position on capital would be a certain production among them of a dogged determination to do no more work at all. He, the parson, thinks and is of opinion that, if it is needful that wood should be hewn and water drawn, it would be worth somebody's while to do both. Those sentiments are not nice to utter.

It is shocking to find people wishing that the great majority of men should be kept dependent on other men by being kept poor. This same vicious principle runs through

very much of the philanthropic action of rich people. It has been the custom in the agricultural districts of being benevolent more than of giving alms. "Teach men to help themselves, and, having taught them, be just in not withholding the means of self-help, and charity will become a superfluous virtue. I believe in no charity. The more you feed beggars the more they gather round you, clamouring to be fed. Nothing for nothing: that is God's plan of benevolent action towards us all. We get nothing absolutely free. The sunshine would be a curse, disease would ride into our homes on its very ray without labour; the strength of my arm would shrivel into impotence without labour; the light of intellect would go out in a gathering idiotic gloom without labour. The hands of labour—of free, hearty, cheery labour—can clutch hold of this earth, clothe its dry deserts with fair flowers, and enrich its barren hills with bread-bearing sheaves.

I look around on our industrial life; I look on the most socially elevated of the labouring class—on him whose wages are highest and whose method of spending them is the thriftiest, and I dare not consider that even he occupies a social position beyond which the great mass of men shall never be doomed to pass. But when I know that millions of the labouring population—of those who throng the busy hives of industry, which has made England as a nation so great, so noble and so free—are over-worked, under-paid, and ill-educated.

Now you see that trades unions see very clearly that the great mass of men must always live by the labour of their hands; that it is as a labourer and not as something else that the working man must be elevated and improved. It is lamentable that those amiable platform and pulpit orators who undertake to lecture the working man, have been and are of all men else the slowest to see this great truth. The working man, with all his inevitable defects for the broadness and generosity of his views of social duty, puts to shame his self-constituted platform improvers. He does not cowardly shirk the duty before him. He bends to his daily toil, and cheerfully accepts it as his life's lot. All the organizations he sets on foot—trades unions, benefit societies, co-operative stores—are designed to protect his interests, and increase his comforts as a workman. Read through the literature published by spiritual pastors and masters. He is reminded of self-made men; he is implored to raise himself above his class; he is abjured to forego beer and tobacco, to live a hard screwing, candle-end and saving cheese-paring sort of life, that he may taste before he dies the supreme felicity of becoming an employer of labour, just as though heaven was only open to employers, and the great felicity of the angels was to pay weekly wages. But, thank God, the workman turns a deaf ear to this mean and selfish advice. He does not overlook the interests of society.

The people of this country have made vast strides of late in the production of wealth. It is so vast and so rapidly augmenting that that it is idle to say poverty exists.

Mr. Editor, I will not weary you with figures. I will only remind you that during the last twenty years the foreign trade has more than trebled, and if you wish for any other proof of the increase of the national wealth you can yourself observe the vast manufactories and warehouses, town halls, exchange buildings, and whole towns have grown up and splendid mansions erected, the mighty docks which have been opened, and rapid extension of railways which bring wealth to every district through which they travel. The gulf between rich and poor, between employer and employed is deeper, wider than it ever was. If the poor have not as a rule grown poorer, the rich have certainly grown richer, with at the same time a sense of moral separation. The rich and the poor have fewer sympathies in common—they form two separate castes. Men as a rule in the great struggle for life going on in this world only get what they are strong enough to claim; the weakest always goes to the wall. If the

immense power of self-assertion which the vast growth of commercial enterprise has placed in the hands of the capitalist class had not been balanced by the power of self-assertion, which combination has placed in the hands of the labouring class, it is frightful to think how entirely and how helplessly labour must have gone to the wall. Political economists say labour is unlike all other commodities, in this, that it cannot be stored up. The workman is interested in selling his labour at a good price, the master is interested in buying labour at a good price. What is a good price in the eyes of the one, is necessarily a bad price in the eyes of the other. So in the nature of things in the ordinary operation if the supply and demand is not sufficient to ensure fair bargaining between the workman standing alone and his employer. In all the other markets of the world the buyers are many and the sellers few. In the labour markets this condition is reversed, the sellers there being many and the buyers few. The fact is, that wages are artificially fixed near that point that suits the interests of the master, and also it makes combination an easy thing to bring about.

The powerful English social opinion of this time denounces as unnatural on the part of the men, and which our English law, to our infinite shame be it said, punishes as illegal. There is still one law for the rich and another for the poor, it is said by the Royal Commission by the rules of trades unions to be destroyed, on the ground that they are a restriction on trade.

Let us begin with the biggest trades unions in the land, and destroy them first. If operatives be condemned for having trades unions because their rules restrict masters to a certain number of apprentices, why should the lawyers be spared? they have trades unions which enacts that no lawyer shall keep at one time more than two articled clerks. If the operative stonemasons are to be condemned because they enact that no person shall become a member of their society who has not served a due and legal apprenticeship, why should the peers of England be spared, who form a gigantic trades union for the one object of keeping immense estates in the hands of first-born sons? What is sauce for the goose is sauce for the gander.

The great social question of the present day is just this: the establishment of partnerships of industry—then this great dispute between employer and employed will be for ever ended, for the two classes will become one class, with interests no longer antagonistic. Capital comes always from labour; sturdy and strong loins, the world's capital of to-day, is the result of the world's past labour. A second way: co-operations amongst workmen for the purpose of carrying on trade on their own account. In the success which attended these schemes, I see the true solution of the great Capital and Labour problem, and the true way of filling up the great gulf existing at present between class and class, which makes the field of the commercial enterprise, a field of warfare and of fraud. It remains for a broad, liberal, and just application to drive the spirits of warfare and of fraud from the field of great commercial industry, and to make labour a blessing and no longer a curse to any child of man.—Yours truly,

A WORKING MAN.

Darwen, May 11th, 1874.

RATHDOWN UNION.—At the meeting of the guardians on Wednesday, the resolution passed at a former meeting referring the entire subject of the workhouse drainage and sewerage to a committee to report upon was read and confirmed. A letter was read from the board's solicitors stating that summonses had been issued against the Dublin Corporation for poor rates alleged to be due on their water-mains, the case to be heard in Dublin on the 27th inst. The clerk said he understood a similar county cess had not been yet paid by the Corporation, a quorum of which body always failed to assemble when the subject came forward for settlement.



## THE STUDY AND PRACTICE OF ARCHITECTURE.\*

(Continued from page 131.)

I HAVE not attempted anything like an exhaustive review of modern architectural practice, but have merely asked you to notice cursorily the various waves of change which have passed over it. Continuing this review, we shall find that we have arrived at a time when architectural taste was to undergo a great revolution, and the Classic was to be succeeded by a Mediæval revival. This revival was at the first, as I pointed out in my former lecture, very much limited to Church architecture, and governed by ecclesiastical influences.

We have seen how the taste for the architecture of Greece and Rome arose with the renewed interest taken in the literature and history of these countries. It does not appear that any such general cause led to the first inclination to Mediævalism.

Walpole, at Strawberry Hill, was one of the first to introduce it between 1760 and 1770, and he soon found followers. Then came the series of dreadful erections which we may stigmatise as Batty Langley, or Strawberry Hill Gothic, which by-and-by roused the ire of Pugin, and were so humorously attacked by him in his "Contrasts." It was a time of shams,—of palaces, churches, castles, and pagodas in lath and plaster. "The first Gentleman in Europe" was contented with a sea-side residence made up of pagodas and turrets, crowned with teetotums and other details appropriate rather to a tea-garden than a royal palace, and Nash reigned supreme over London improvements.

As I have mentioned Nash, it is only fair that as regards his improvements we owe him thanks. He laid out Regent-street, from its commencement at Cockspur-street, to its termination in Regent's Park. The architecture along this fine thoroughfare shows all the faults of the time, but the arrangement is managed with great skill, and any architect who may now be entrusted with similar work will find much to study with advantage in the plan of the successive squares, circles, and curves, which mark the disposition of the space. Taken altogether, I know of no such magnificent thoroughfares in any European city, if I except (and that only to a limited extent) the Boulevards of Paris. Nash's designs of the buildings are, as I have said, mean, and unworthy of their position; but this defect admits of improvement. The property on each side of the way belongs, I believe, to the Crown: we know what the present Duke of Westminster has done with Belgravia, and there is, therefore, a hope that someday a Minister of Works will be found who will perfect Nash's work, and make his own name illustrious, by compelling the erection of worthier architecture, and the substitution of stone and granite for the compe and lath-and-plaster shams of the Regency. When this has been done, and when the Thames Embankment has been properly completed and planted, London, already the most varied and picturesque of capitals, will have little to fear in the way of comparison.

You must excuse this digression. I have made it, not only in justice to Nash, but because architects should have much to do in these days with Metropolitan improvements, and it is to be hoped they may be marked by the same breadth and boldness of plan shown by him. How much room there is for this, you may see for yourselves if you pass from Regent-street and Portland-place to Victoria-street, Westminster, or the new street in Southwark to London Bridge.

I am not going to dwell on the other works of Nash, nor on those of Wyatt; they worked with imperfect knowledge, but they roused the spirit of inquiry in others, and paved the way for better things. The literature of Gothic art became studied, and Britton, Rickman, and the elder Pugin, with their followers, published many valuable works. A great religious revival was taking place at the same time, and the well-known Oxford movement led the clergy to throw their weight into the scale for the Gothic revival. Whereas it was at this time almost impossible to obtain skilled workmen for the subsidiary details of Gothic art, schools of carving, iron work, stained glass, encaustic tiles, and the other kindred works of decoration sprang rapidly into being, this being due chiefly to the impetus given by the younger Pugin.

Sir Gilbert Scott has told you that, as the result of this movement, the Gothic revival holds absolute possession of the ecclesiastical architecture of the day, but that it has not yet obtained that mastery over the secular buildings which was long enjoyed by its rival. Indeed, if we may judge by some recent preferences for what has been called the Queen Anne style, it may be doubted if it has not lost ground rather than gained it, as regards this

portion of the architects' work. We are therefore now again brought round to the problem with which we started, namely, what form is our art to assume in the future? We have seen that there have been two revivals, in some cases proceeding side by side with each other, and before we can answer the question we must ask, I think, what are the tendencies of our time, and what has been going on around us, while architects have been fighting the "battle of the styles?"

If architecture has not been idle, it is right to remember that the world at large has not been standing still, and we may therefore consider for a moment what have been the other characteristics of the last forty years. It cannot be doubted that they have been years of progress in the mechanical and engineering arts. I have before alluded to the rise and progress of what we call engineering; but the subject is so important as regards its bearing on architecture, that I must dwell upon it again for a few moments. Since Stephenson's development of the railway locomotive engine, in 1829, the increase of railways alone has been prodigious; indeed, some persons consider that they now constitute too large a monopoly to be left in the hands of private persons. We have nothing to do with such questions here; but, in order to show you the enormous progress that has been made in this department of engineering alone, I may mention that it has been estimated that if the railways were acquired by the State, their purchase-money would be little less than a thousand millions. These are large figures, and apply to railways only. While they have been in progress, millions upon millions have been spent on steamers, docks, waterworks, and other enterprises of public utility. The Alps have been pierced, gigantic works of various kinds are in progress, or are being projected, and it would seem that the only limit of power which is now acknowledged by engineers is that of finance. Mankind has seen its various families brought more closely together, distances have almost been abolished, and instant communication secured with all portions of the world. The electric telegraph, from being regarded as a scientific toy, has become a mighty agency, whose full development cannot yet be accurately forecast. Would that it could be added, that the human race had experienced the full advantages of scientific knowledge, in the increase of happiness caused by peace and prosperity! but it must be confessed that these signs of peaceful progress have been at least equalled by advances in the science of slaughter; and that, in spite of Christianity and civilisation, men fight with men, as desperately as ever, and the horrors of war have perhaps never been so dreadfully exhibited in two worlds, as during the time under our review.

Many of the great achievements of science are of course removed altogether from the domain of fine art, though it has been a mistake to act too hastily on this supposition, in the case of some of them. The works of the engineer which have too often disfigured our towns, have generally a scale, and grandeur of conception, which in the hands of the true artist, might have made them things of beauty, as well as of use, and would have enabled us to regard them, if not with joy, at least with equanimity and content. Although, however, we have not at present reached this stage of feeling, no one can regard the mechanical triumphs of our day with indifference, and as Englishmen we cannot but be proud of the position taken by our own country in the van of the moment.

Whatever may be the final destiny of engineering, there can be no doubt that the duty of the architect must be to study the requirements of his time, and to reconcile utility with artistic beauty, in addition to making himself acquainted with the theory and practice of ancient art. It is the more necessary to urge this in consequence of the immense seductions of the antiquarian and archæological aspects of architectural study. Few things in modern history have been more remarkable than the revival of interest in these matters, and I should be sorry to be supposed to say one word for its discouragement. Only the student must not make it his all in all. Nothing can be better for him than to wander sketch-book in hand, among our noble cathedrals, and historic remains, or to be found in quiet English villages, studying reverently the teaching of the sermons in stone of thousands of our churches, but if he go no farther than this, he must expect to find that architecture will come to be regarded by sensible men as an archæological curiosity, alien from the wants of the age, and unworthy of the attention of those who hold that the noblest object of man's study is Man. Something of this result is perhaps already to be seen in the tone and temper of some public utterances on the subject of architecture, and it is well that the difficulties of the case should not be ignored by those who devote themselves to its study and practice. A heritage of carelessness and neglect has

made the present generation a generation of church restorers; and architects have therefore been especially called on to turn their attention in this direction. A strict conservatism has been naturally forced upon them by the course of events, and it may probably be maintained, without fear of contradiction, that at no time, and in no country, have so many difficult tasks of architectural restoration been successfully performed. There have of course been exceptions to this rule, and we have often to deplore a rage for so-called restoration, which has deprived some venerable fabric of every particle of historical value. But in all great movements there will be extravagances, and when the tale of our time can be written, it may probably be described, with considerable approach to accuracy, as an epoch of conservative art and progressive science.

But is there any reason why architecture should rest content with mere conservatism, and abandon progress to the engineer and man of science? The Parthenon, the Hall of Karnak, and the Mediæval Cathedral, exhibit progress, not only in the artistic, but in the constructional or scientific sense, when contrasted with the Pyramids; and architects have now all the resources of the world at their command.

In speaking of engineering, reference has been made to the almost startling suddenness of its development, as we now see it. While an architect must too often feel that the structures of his time do not surpass, or even equal, the productions of his forefathers, an engineer is troubled by no such misgivings. It is doubtless too much to expect that architecture should rival the strides of engineering; but in its quality of a useful art, it is closely allied with science, and may expect to have some share in its progress. In the mean time it is impossible not to regard with feelings somewhat akin to jealousy, the well-grounded confidence of the modern engineer, that he can surpass the achievements of his fathers, and write his name on the history of his time.

While we pay an ungrudging tribute to the success which has attended engineering, we must nevertheless remember that it is not architecture. The one is a science, the other is art and science in combination. We may, however, reasonably inquire what are the principles which engineering has marked out for itself, and by which it consents to be judged. One of them is a careful adaptation of its works to the convenience of those who are to use them. This is a principle which should also be accepted by the architect. Again, engineering prescribes the use of fitting materials, and good statical forms, here also there is a common ground.

What, then, is the difference between architecture and engineering? It is, I think, principally a difference of addition.

The architect, no less than the engineer, must accept the dictates of common sense, but he must add to the work of the latter artistic beauty. The dull and heavy supports which a pure utilitarianism would give us, should become in the hands of the architect, replete with effects of light and shade, as they are adorned with mouldings and sculpture, or thrown into the form of columns and arches. The bare roof of necessary covering grows into domes, groining, or beauteous forms of woodwork, when it passes from engineering into architecture.

Our towns, instead of being planned with rectangular blocks, as in the chessboard-like arrangements of American cities, depressing in their dull monotony, may owe to the architect countless graces both of general and particular design. Churches, town-halls, and private dwellings may all charm the instinct for beauty, by reason of the architect's addition to that bare provision of necessity, which falls within the province of the engineer. With the latter, the materials employed must be used economically and scientifically, with strict reference to the utilitarian object in view. The architect must go beyond a bare sufficiency, and add the graces of ornamental construction, never forgetting that he is not to invent the ornament, for the sake of constructing it.

We have seen how great has been the progress of mechanical science. A similar activity has been shown in other branches of science, and every day we hear of some new and wonderful discovery,—now among the stars above us, now about the earth under our feet, the air we breathe, or the water we drink.

It seems to me unquestionable that architecture, to be a living art, must be in harmony with this state of things. It was reasonable, and perhaps necessary, that men should first turn their attention to restorations. This necessity has now passed away, and with it the day for copying the architecture of the past.

I cannot venture to predict the issue of the warfare of the styles, but with all the signs of the times before us, it is difficult to believe that future

\* Lecture II. By Mr. E. M. Barry. Read at Royal Academy, London.



thought and science will be content to wear a Mediæval garb. The tendency of civilised nations appears to be in the opposite direction, and to demand that our architecture, on whatever foundations it may rest, should be consistent with the tendencies of modern ideas, founded on truthful principles, and not by its very completeness of imitation an elaborately constructed falsehood. At the same time it must be confessed that there is no such general agreement among architects on this point, as would justify me in directing you authoritatively, as to the selection you should make for your special studies.

The peculiarity of our position in these modern times prevents us from deriving much instruction on such a point from the experience of former ages. Up to the time of the revivals, each age possessed but one style of architecture, and followed it with singleness of aim. We have no reason to suppose that the old architects knew anything of the history of art, for they had no opportunities of learning it, unless, indeed, through the common craft of the mysterious body of Freemasons.

To-day we have to deal with a very different state of things. No one need be in ignorance of the history of architecture; and the art of engraving,—to say nothing of the process of photography,—brings home a knowledge of the forms and details of the architectural works of all ages and countries to all who wish to possess it.

Even in Wren's day, a visit to Rome was a formidable affair, and he never saw St. Peter's. To-day, you know how everyone hurries on the wings of steam, to see everything that is worth seeing, in all parts of the world. The "grand tour," from being the crowning item of the patrician's education, has become the privilege of all who can command some weeks of leisure, with a few pounds to spare. Men hurry from point to point, and think they are studying art.

Modern restlessness may be either the cause, or the effect, of modern eclecticism, but in any case it would seem to be fatal to the acceptance of any universal rules of guidance in artistic matters. While, therefore, we cannot absolutely predict the future of architecture, we must devote our best efforts to work out the problem of reconciling beauty with utility, whatever may be the style of our individual predilection. If we think first of the purposes of our buildings, and afterwards of the details to be used, we may probably find ourselves on the way to true originality, while we shall avoid the reproaches, so often levelled at architects, of not sympathising with their own time, in which they have been born.

Science must not be repelled, rather its alliance must be courted. If new constructions are required by convenience, they must not be grudgingly accepted. The use of iron is to the engineer as the air he breathes; it should not be neglected by the architect. Even now, many grand works of architecture owe to it their very existence; and in quite recent times, we have seen it applied as ties or struts to some of our most famous English cathedrals.

A scientific application of iron enables the architect of to-day to indulge in features more apparently daring, though not really so, than were possible in the days of our grandfathers. Are these opportunities to be rejected? It is rather the duty of the architect, as an artist, to study carefully the laws which limit the useful employment of iron in works of architecture, with a view to conform his designs to those laws, and so arrive at artistic successes, similar to those gained by our Mediæval predecessors, in their use of wood, stone, and the other materials with which they were familiar.

In the form of beams, iron offers obvious advantages to the architect, by extending his powers. He can, by its aid, venture on spans of floors, and roofs, hitherto only possible at vast expense, even if not altogether impracticable. It is only a few weeks since the President of the Institution of Civil Engineers informed the members that a bridge was to be erected in Scotland, with openings 1,600 ft. wide, and piers 100 ft. in height above high-water mark. He also described a light-house which had been built in the midst of the sea, entirely of concrete. A short time previously one of the first engineers of the day had pledged his reputation to the feasibility of connecting England and the Continent by a tunnel under the Straits of Dover. I cannot but think that architects would do well to consider carefully these signs of the times, and to accept readily the conclusions to be drawn from them.

In questions of construction they may learn much from the engineer, and may often work hand in hand with him to the public advantage. Bridges and aqueducts were once considered to be within the province of the architect; but we may be sure that when such gigantic dimensions, as I have mentioned, can be promised by others, there will be

little disposition on the part of the public to revert to the more timid constructions of past ages, even if to an artist's eyes they may appear more beautiful. This being so, is it not our duty to make the best of the circumstances in which we are placed? No one is bound to attempt impossibilities, and the revival of Greek temples and Mediæval cathedrals must, I think, be reckoned among them. The form may be copied, but the spirit is not there. You may obtain clever reproductions, delighting the scholar, and the antiquary, but you will feel your hold on public taste slipping away from you, until a dreary and hideous utilitarianism shall reign supreme.

I cannot do more now than commend these points to your consideration, in the hope that you will think them out for yourselves, and come to a sound decision upon them. If I have not ventured to pronounce dogmatically on the prospects of architecture, I have, nevertheless, attempted to indicate the principles which seem to me likely to govern in the future the practice of our art. The particular application of them must be left to the taste and genius of architects.

To some, it will appear that the true path is from a Mediæval starting-point, and that we should ignore all that has been done before or since the thirteenth or fourteenth century, and start afresh. Others will hold a reference to classic traditions the more reasonable course. By another school it will be thought impossible to close our eyes to the experience of past ages, which is laid before us, as in an open book, and to ignore what has been done by either of the rival systems of architecture. These will inquire whether there may not be some common principles of beauty inherent in both systems, on which future excellence may be based, without a rigid adherence to conventional rules of style. They will further insist that architecture must be governed by common sense, and be consistent with modern ideas. Their preferences may lead them, in the first instance, to that Anglo-Italian type of which I have before spoken, with such modifications and extensions as circumstances may require.

This style possesses the convenience of round arches, and square lintels, and will admit of various degrees of treatment. Heroic, or domestic, according to the necessities of the case, it can display stateliness when required for public purposes, and plasticity when the demands upon it are more humble. It will readily combine with the sister arts, and is prepared to accept new materials or new processes. It seems, therefore, to offer a meeting-ground on which something like a fusion may be effected. The adoption of what is called the Queen Anne style, little as some of us may approve of it abstractedly, would appear to be an effort to follow out this principle. As far as we can define this manner of work, it may be termed an attempt to unite the picturesqueness of the Gothic with details, not very pure, belonging to Classic architecture,—a Renaissance, in fact, but less strict and refined than the style to which the term is usually applied.

To those who are attracted by it, I would recommend the study of the châteaux on the Loire and in the centre of France. They will find in them all that the Queen Anne style gives them, and I think much more. To great boldness and variety of outline, these Renaissance buildings add an elegance of ornament which is based in some examples on Mediæval, and in others on Classic precedents, according to the dates of their erection. They are exceedingly rich in picturesque details, such as high roofs, turrets, chimney shafts, and dormer windows, and they adopt windows of various sizes and shapes, mullioned or otherwise, according to circumstances. The convenience of round arches and horizontal floor divisions is freely accepted, and the great roofs, which are invariable, offer facilities for the provision of a number of secondary bedrooms, to do which, without either meanness, on the one hand, or extravagance on the other, is not one of the least difficulties of an English architect engaged on domestic work.

Those of you who have not yet visited the valley of the Loire, will find it a most delightful architectural excursion, starting from Orleans, by Blois, Tours, and Angers, to Nantes, with excursions, from time to time, on the right and left banks of the river. At Blois and Amboise the details have a Mediæval character, while at Chenonceaux and Chambord, they are for the most part based on Classic forms, and in some cases, such as the applied Corinthian pilasters, they are copied from Classic precedents. These fine old structures appear to me to be full of suggestions to ourselves; but in any case I know of nothing more interesting than the evidence they afford, of the taste and tendencies of their builders, in a transitional age, anxious to adopt the new forms of the day, while still clinging to the traditions of the past.

The time warns me to conclude. In these two preliminary lectures, I have but touched lightly on

the considerations which must affect the future of architecture, but I would wish to convince its students of the greatness of their mission.

In following architecture, they are the slaves of no mean mistress; and if they wish for success, they will need all their best energies to obtain it. Their devotion will be excited and controlled by the responsibilities cast upon them by the peculiar characteristics of practical architecture. Simplicity and truthfulness will be their aim in their studios, as in their homes, together with untiring industry. Without the latter they will scarcely thrive, for to the architectural artist, in an especial degree, there is no royal road to excellence.

This lecture has been meant as an incentive only to private study, and I shall be glad if any who hear me have had awakened in them a conviction that, great as have been her past triumphs, architecture may have yet before her a glorious future.

Painting and sculpture can hardly look for progress, because, being pure fine arts, there is no room for their advancement, by reason of any increase in the powers of man. Phidias or Titian may possibly be rivalled, but they cannot be surpassed. What Man can do now, as a painter or sculptor, he could always do, and no advance of knowledge can increase his artistic capacity. With architecture, as a mixed art and science, it is different; and as she is bound to recognise utility, she is of necessity connected with scientific progress, and may, therefore, be destined to surpass in the future the achievements of the past.

To ensure progress, it is indispensable to be first certain that we are on the right path. "Be sure you're right, and then go ahead," is advice which none need be ashamed to follow.

To advance art is a noble mission, and never more so than now, in an age of fastidious civilisation, of wealth, luxury, and softness. It is surely something to have aims and aspirations independent of that money for which men lie, and steal, and murder, and to aspire to a fame not to be measured by its glittering standards.

A conscientious artist will meet with much to discourage and disappoint him, but his pleasures will be pure. He will live in a world of his own, and happy will he be, if, when the night cometh, he can repose, as does our great English architect at St. Paul's, under the well-earned epitaph—

"Si monumentum requiris circumspecte."

#### MESSRS. MINTON'S PATENT OVEN.

MESSRS. Minton, of Stoke-upon-Trent, have just taken out a patent for an improved oven in the firing department of the pottery manufacture. It is difficult, without the assistance of diagrams, to give a correct idea of an invention of this kind. The improvements commence before we get to the oven itself, for the hovel is abolished, a low lean-to shed round the oven being ample. In existing ovens the feeders or mouths of the fireplaces are constructed partly beyond the circumference of the oven, and partly under the walls of the same; but by this arrangement a large portion of the generated heat is expended on the contiguous brickwork, and has no direct action on the ware to be fired. In the new oven the old mouths are dispensed with, the combustion being effected entirely within the inner circumference of the walls, and this leads to a large reduction in the quantity of fuel consumed. The patent provides for the erection of a chamber over the oven by which heat which might otherwise be wasted is utilised for the firing of articles requiring a comparatively low temperature. The flame is directed towards the upper part of the oven, and as there is no opening at the top of the vault the heat is compelled to travel downwards until it reaches the floor, where it finds a number of openings. These openings give access to several horizontal flues, and from these the gases reach the upper chamber by passing through a corresponding number of upright flues constructed within the thickness of the walls of the oven. From the upper chamber, which acts as a regulator of the draught, they pass into the open air. At various heights above the doors of the fireplaces are small openings for the introduction of the air requisite to ensure perfect combustion. Under the floor of the oven is a flue which communicates with the external air; this is kept shut all the time the oven is firing, and is opened afterwards to assist the



cooling. A damper in the centre of the vault is also removed, after the firing, with the same object. It is claimed for this invention that it has several advantages over the old form. Chief among these is that of economy. The original cost is less, and the consumption of coal is greatly reduced. Messrs. Minton have a 15-ft. biscuit-oven which they have fired twenty times—a pretty severe test—with an average of something less than nine tons per oven, and this oven has never yet turned out a piece short fired. In the first large biscuit-oven built on this principle (18 ft. 2 in. in diameter), the consumption was 12 tons 18 cwt. in 56 hours. It contained, besides cream colour and best earthenware, parian, stoneware, and majolica. At the first trial of a 15-ft. glost oven, 3 tons 8 cwt. of coal were consumed. The quantity of coal consumed, and consequently the saving, will depend to some extent upon the class of ware fired, but the saving is put generally at one-third for biscuit-ovens, and two-fifths for glost ovens. The combustion is said to be perfect, and consequently the oven smokeless. Messrs. Minton have appointed Messrs. Scrivener & Son, architects, Hanley, their agents for the patent. The royalty for the use of it has been fixed at a very moderate figure.—*Builder*.

### THE RALPH MACKLIN SCHOOLS.

THE *St. Ann's* (Dublin) *Parochial Magazine* for March last contained an article respecting the amalgamation of the above schools with those of St. Ann's Parochial School.

The Rev. Mr. Peacey, one of the curates of St. Ann's parish, announced to the children, previous to the Easter holidays, that they were for the future to assemble in St. Ann's Parochial School-house, Molesworth-street. The girls' school was re-opened after the holidays in the school-house where it has been held for nearly twenty years—viz., 40 Lower Camden-street, so that there was reason to believe it would be allowed to continue there for time to come. It appears that, so far as certain governors and governesses of the institution have influence in the matter, the school is to be removed to St. Ann's Parochial School-house, Molesworth-street. On the 21st of April there attended at a board meeting three ladies (for the first time on record), governesses of the Magdalen Asylum; two gentlemen (trustees), governors do.; two curates of St. Ann's parish, governors; one curate of St. Andrew's parish, a governor. The curate of St. Werburgh's was not summoned, because the above-named parties took upon themselves to determine a legal question, none of them being qualified to do so—viz., whether, as there was only one clergyman at present in St. Werburgh's, whether he was both rector and curate? In 1834 the Attorney-General gave his opinion on the case stated, in the affirmative. This board unanimously resolved that Ralph Macklin's Schools were to be transferred to St. Ann's Parochial School-house, Molesworth-street, and their solicitors were to be instructed to draw out a deed of agreement between the trustees of Ralph Macklin's Schools and the vicar and other authorities of St. Ann's Parish, to the effect that the first-named parties are to rent from the latter St. Ann's Parochial School-house, for twenty-one years, at one shilling rent per annum.

On the 8th of April some of the parents of the children attending the schools in 40 Lower Camden-street had signed and addressed a letter, of which the following is a copy, to—1, the Governors and Governesses of the Magdalen Asylum; 2, the Curates of St. Ann's, St. Andrew's, and St. Werburgh's Parishes; 3, the Trustees of Ralph Macklin's Schools; 4, the Representatives of Ralph Macklin; 5, the Commissioners of Charitable Donations and Bequests:—

"To the Representatives of Ralph Macklin,  
7 Dawson-street, April 8, 1874.

"One of the governors of the Ralph Macklin Schools, Rev. Thomas Peacey, a curate of St. Ann's parish, addressed the scholars of the above schools on Thursday, the 2nd inst., to the effect that for the future they were to assemble in St. Ann's School-house, that the Ralph Macklin Schools will be held there. We, the undersigned, parents of the scholars attending the Ralph Macklin Schools beg to point out to you that the will of the founder expressed his desire that an *institution* for the poor should be established, clearly meaning that the institution should be by itself, and not be amalgamated with any other, as he wished it to be a monument to his memory, and at the same time a benefit to the poor. We would also submit that

the founder wished it to be a non-parochial institution, as is evident by his naming the curates of three different parishes—viz., those of St. Ann's, St. Andrew's, and St. Werburgh's, to assist the governors and governesses of the Magdalen Asylum, Leeson-street, in the management of it. And as proof of this the institution was commenced in Fleet-street (St. Andrew's parish), then transferred to Stephen-street (St. Bride's Parish), and then to its present locality, in St. Peter's Parish (as the Ordinance Board required the ground it stood on when in Stephen-street). But in no instance were the schools to be combined with the parochial ones. We would further submit that there is a large and increasing population surrounding the present site, such as Kingsland Park (formerly Portobello Gardens), Arnott-street, Caroline-street, Synges-street, &c. (all new). We hope the trustees will not, under these circumstances, sanction the removal of the Ralph Macklin institution from its present position." Signed, &c. (here follow the names).

To this letter no reply has been given.

Seventeen parents of children attending the school have signed a requisition asking me to interfere on their behalf, and do all I can (as I had hitherto done) to prevent the removal of the school from its present site, and I sent a copy of this letter to the Commissioners of Charitable Donations and Bequests, and also took other measures to prevent the intended mischief. Besides the parents being opposed to the removal of the school, one of the trustees (Rev. Macnevin Bradshaw) has openly denounced it, and published a letter in the *Evening Mail* and *Express* newspapers, stating his reasons for so doing. One of the clerical governors is strongly opposed to it, another of them asserts he is indifferent about it, Ralph Macklin's true representatives disapprove of it, and the Commissioners of Charitable Donations and Bequests have drawn the attention of the board to the wording of Ralph Macklin's will and to the scheme for the working of the same, as set forth in the order in Chancery. And who are the parties who desire it? The vicar, curates, and treasurer of St. Ann's Parish, as it would bring nearly £200 per annum into it, plus one shilling rent.

The proposition, as set forth in the minutes of the Ralph Macklin board (that is, some of them) is that because the curates of St. Ann's, St. Andrew's, and St. Werburgh's are named in the will to assist the governors and governesses in the management of the institution, therefore the testator wished it to be placed somewhere in "the district" (what district?) of those parishes. But this is a *non sequitur*. If that reasoning be sound, it would follow that the school should remain where it is—viz., in the parish of St. Peter, in which the Magdalen Asylum is situate. The fact is, there is no locality named nor alluded to in the will. It is to be inferred that Ralph Macklin wished the institution to be in Dublin, and among the poor of the city. Where, then, could it be better placed than where it now is, and has been for nearly twenty years? For, whilst the houses of the three parishes aforementioned have decreased during the last ten years, those of St. Peter's have increased, and are increasing, and it contains more "poor" people than the three others put together. In the decade from 1861 to 1871 there was a decrease of 308 houses in the three parishes, whilst in that of St. Peter's, within the bounds of the city, there was an increase of 799, making a difference of 1,107 houses.

The returns to the Royal Commissioners on Endowed Schools and Primary Education show that from the first establishment of the Ralph Macklin Schools to the census of 1871 both Roman Catholic boys and girls were taught in them. It is generally understood that the vicar of St. Ann's is averse to what is generally termed proselytism. Would the Roman Catholic children in St. Ann's Schools be taught the "Church Catechism" and instructed in the "Church Formularies?" I have a letter before me, dated Nov. 28th, 1853, written by the late Rev. G. Blacker (who for many years was one of the governors, and the acting trustee of the Ralph Macklin Schools), in which he states that "No catechism is taught, and the schools are not connected with any society. The trustees have the sole management of the schools."

The Endowed School Commissioners (1858) recommended, in their report, 1st, that no endowed school should be in or against a churchyard, which St. Ann's Parochial School-house is; and, 2nd, that every school-house should have a playground attached to it, which St. Ann's has not.

Such are some of the reasons why Ralph Macklin's Schools should remain where they now are. I will now state others why they should not be removed to St. Ann's Parochial Schools. The article in reference to the proposed removal, as given in the *St. Ann's Parochial Magazine* for March, states that it is intended—1st—To have superior

teachers for the commercial classes, so that the pupils may be qualified to compete for Government or Civil Service appointments. 2ndly—That the pupils should be instructed in church principles, and under the superintendence of clergymen.

The answer to this is very simple—viz., these are already done in the excellent model schools, for boys, girls, and infants, of the Church Education Society, in Kildare-place, situate in St. Ann's Parish. But the testator wished the Ralph Macklin School to be a poor school, *alias* a school for the poor, and this is evident from the scheme in Chancery giving permission to the governors purchasing, for the most deserving and necessitous children attending them, clothing; and the records of the school show that repeatedly boots and caps were given to the boys, and bonnets, frocks, and aprons to the girls.

3rd—The teachers of Ralph Macklin's Schools were to have apartments provided for them in the school-house. There is not accommodation in St. Ann's Schools for them.

These several objections do not pertain to the present school-house in 40 Lower Camden-street. But for argument's sake let us suppose that Ralph Macklin's Schools are removed from their present site to that in Molesworth-street, what might be the consequence? Suppose the present Vicar of St. Ann's should be made a bishop or an archbishop, or that he should die, and another vicar who was no party to this agreement with the governors of Ralph Macklin's School should be appointed in his stead; and that the curates of St. Andrew's or St. Werburgh's should, as governors, visit and examine the schools, and that the new vicar object to their so doing, what remedy would the clerical governors have? This supposed case did actually occur as respects the same Ralph Macklin's Schools. In 1853 the solicitors were consulted as to whether the "clerical governors" could receive any beneficial interest from the funds of the institution. The answer being in the negative, the Rev. W. G. Carroll, the senior curate of St. Bride's Parish, in which the schools were then situate (Stephen-street), was appointed by the board inspector at £20 per annum. Mr. Carroll continued to be such, to the satisfaction of all parties concerned, until a new rector was appointed to St. Peter's Parish, to which the School had been removed (Lower Camden-street), when he remonstrated with the board of governors that a clergyman not connected with the parish should act as inspector of the school, and receive £20 per annum for so doing, whilst the clergymen of the parish were willing to do so for nothing. The board, instead of replying that the institution was a non-parochial one, dispensed with the further services of the Rev. W. G. Carroll, expressing deep regret at doing so, and upon the plea of want of funds.

For the next seven years there was no inspector, but at the end of the year 1871 the board made regulations (notwithstanding the legal opinion given in 1853 to the contrary) that the clerical governors should act in that capacity, each for three months at a time, and receive £5 at the end of the quarter for so doing! The second volume of the Royal Commission of Inquiry into Primary Education (Ireland), page 74, contains a letter from the Rev. H. H. Dickinson, D.D., Vicar of St. Ann's Parish, Dublin, dated 1 Upper Merrion-street, August 11th 1868, which commences thus:—Sir,—In answer to your inquiries on the subject of primary education, as follows: The means of education in my own parish are—1. The parochial schools, boys, girls, infants (day schools); 2. The Kildare-place Model Schools, do. These are sufficient for the parish.

(Signed) HERCULES H. DICKINSON, D.D.,  
Vicar of St. Ann's, Dublin.

"Thos. King, Esq.,  
Assistant Commissioner."

With this testimony I close this first letter on the subject.—I am, sir, your obedient servant,  
GEORGE S. DYER, Capt. R.N.

34 Upper Gloucester-street,  
Dublin, May 13th, 1874.

### THE DRAINAGE OF KINGSTOWN.

THE following is the report of the inquiry held recently in Kingstown *in re* borrowing £10,000 for drainage purposes, and which was crushed out of our issue of 1st inst.:—

Mr. John Monroe, instructed by Mr. John Lalor (solicitor to the commissioners), appeared to support the petition.

The Commissioner, in opening the proceedings, said:—I attend here to-day, pursuant to instructions, to inquire into a petition presented by the Commissioners of Kingstown Township, praying that they may be empowered to borrow, and re-borrow on mortgage of the sewer rates, a sum not



exceeding £10,000 for the purpose of having a perfect and complete system of internal sewerage in the township.

Mr. Wrenfordsley said as a ratepayer he could not at present discover what the object of the petition was, but when he heard the evidence it was possible he might have to enter an objection.

Mr. Monroe stated the case for petitioners, and cited authorities to prove that it was competent for them to borrow the money sought for. The petitioners would satisfy the commissioner that the internal drainage at present existing was very defective, and further, that the system as proposed by the commissioners' engineer was one in all respects complete and perfect, and could be carried out for the £10,000. The assessable value of the township at present was £70,000, and under the act the commissioners were enabled to borrow to double that extent.

Mr. Kelly, T.C., believed that the existing sewerage and drainage were imperfect. The population has increased very much during the last four or five years. House property has doubled within the last twenty years. Only for bad landlords and the shortness of the leases, the increase would have been larger. There is no system of drainage in the town at present.

F. A. Doyle, C.E., surveyor, deposed that he had prepared maps for the Commissioners, showing the sewerage at present existing. The sewers were laid down at intervals without system, and are deficient in construction and fall. The drainage of Kingstown is divided into two districts. It is absolutely necessary that a new system of drainage should be arranged. There are some 400 yards of sewerage recently put down that will not require re-construction. It is intended to put down some 10,794 yards of new sewerage—brick and pipe. The sewerage he had laid down on the map [produced] was a perfect system, and would contribute to the sanitary improvement and health of Kingstown. The cost for the Glashule district was estimated at, in round numbers, £2,000, and for what was known as the Kingstown district, some £7,935.

Mr. Wrenfordsley wished to say that the difficulty he felt was, that from the Act of Parliament he believed they had no right to levy a rate until the expenses had been, not estimated, but incurred. He wished to know did the witness ever, in his experience, see anything more destructive to health than was presented by the poor lanes about George's-street and Glashule?

Witness—They are poor and dirty, but the people are healthy; there is no sickness.

In answer to Mr. Monroe, witness said that since '68 there were seventy-six new buildings erected in Kingstown, most of them of a good class—there were two churches, one hotel, one bank, one club-house, and a sailors' reading-room. There are sixteen and-half miles of main roads in the township, and only eight and a-half of sewerage, which was very imperfect.

Mr. James Barrett, J.P., T.C., deposed that the present system of drainage was extremely deficient.

Mr. Doyle, re-examined, said the present system of internal sewerage will suit any system of outfall that may hereafter be adopted.

Mr. Crosthwaite, Chairman of the Town Commissioners, thought the sewerage was not grossly defective, but it was considered desirable to improve it. The plan proposed would be beneficial to the township. It was thought advisable to obtain the necessary power now to borrow the money, and proceed with the internal drainage, but it was not their intention at present to proceed with improving the outfall, though they proposed doing so in the autumn.

To Mr. Wrenfordsley—We have our sanitary officers, and they did not complain of any impurities existing. There is no sickness prevalent. I am one of the largest holders of property in Kingstown, and have built the greater part of new Kingstown. I have sewered properly all my property, and it is not contemplated, nor is it necessary, to expend one shilling of the township rates on my property.

Mr. Monroe—You have no personal interest in this proposal? Not the slightest.

To Mr. Wrenfordsley—The lords of the soil have not made much improvement in George's-street, but the property has almost entirely passed out of their hands. In 1844, when most of the leases were made out, they were given for 99 years, so that the lords of the soil have very little control over the property.

This closed the evidence in favour of the petition. Mr. Wrenfordsley then deposed that he had been living since 1851 in Kingstown in three different houses, and never experienced the slightest imperfection in either drainage or water.

The Commissioner—Do you object to this expen-

diture, or to the necessity of having any improved sewerage?

Mr. Wrenfordsley—So far as the internal drainage is concerned, I think it ought to be done, but I think the proper persons ought to pay for it. It appears to me that there is no power for the Commissioners to raise the money for it.

Mr. Wrenfordsley then handed in a formal objection, and the inquiry terminated.

### PROPOSED MEMORIAL TO BALFE.

It is proposed to commemorate the name and fame of our countryman, Balfé, the eminent composer. Some steps have been already taken in this city to carry the proposal into effect. We trust that, in design and execution, the memorial will be a fitting one, and that our citizens will liberally subscribe to make it worthy of the composer and his native city. Mr. John O'Duffy, 17 Westland-row, is the honorary treasurer to the fund. A meeting of the committee will be held tomorrow at the Mansion House.

### CIVIC LYRICS.—No. LXI.

#### CONFESSIONS OF A TOWN COUNCIL.

##### A SONG FOR THE TIMES.

We've wasted the public money,  
To taste of the sweets of life;  
We stole from the bees their honey,  
Until discontent grew rife.  
Age, that everything mellow,  
Has ripened our wits to scheme;  
We're all still merry good fellows,  
And not so bad as we seem.

We've bartered the public credit,  
And squandered the public cash;  
Disclosure we never dread it,  
Nor fear the terrible crash.

Age, that everything mellow,  
Has made us still fond of cream;  
We're all still merry good fellows,  
And not so bad as we seem.

We have fouled the City's river,  
We stint the water supply;  
What boots, for the hardest liver  
Must still, like the softest die.  
Age, that everything mellow,  
Still makes us of jobbery dream;  
We're all still merry good fellows,  
And not as bad as we seem.

Our Council is still most fitting  
To beg, and plunder, and pray,  
In the hope it may be sitting  
At least till the Judgment Day.

Age, that everything mellow,  
Has made us rascals supreme;  
We're all right merry good fellows,  
And not so bad as we seem.

CIVIS.

### PAYING AWAY RATEPAYERS' MONEY.

THE following case, which was tried at the Court of Queen's Bench a few days since, is worth re-producing as a reminder to dishonest town councils:—

*The Queen, at the prosecution of George Finlay v. the Justices of the County Meath.*—Mr. D. Fitzgerald, with whom was Sergeant Armstrong, on behalf of the prosecutor, one of the auditors of the Local Government Board, moved to make absolute a conditional order for a *mandamus* to order Captain Butler, R.M.; Mr. Murphy, J.P.; Mr. Drake, J.P.; and Mr. Colgan, J.P., or one of them, to show cause why they should not issue a summons against Messrs. Brennan, Plunkett, and Malone, three of the town commissioners of Trim, calling on them to pay a sum of £28, surcharged upon them by the auditor, being the amount which they had given out of the borough funds to the Rev. John Duncan, P.P., Trim, for the purpose of putting up gas fittings in the chapel and the parochial-house. It appeared that in the first instance a summons was granted by Captain Butler; but when the case came on for hearing, on the 7th of January, the only magistrates sitting were Mr. Colles and Mr. Murphy, and these gentlemen disagreeing in opinion the summons fell through. Captain Butler then issued a second summons on the previous complaint, and this case came on for hearing on the 14th of February. Captain Butler, Mr. Murphy, Mr. Drake, and Mr. Colgan sat on the bench that day and heard the case, but dismissed it without prejudice; but they then refused

to issue a fresh summons, on the ground that they could not do so without a fresh complaint. It appeared that a sum of £5 was allowed by the Commissioners out of the borough to the Methodist Chapel; but when the auditor disallowed the two payments the Methodists at once paid back the sum which they had received.

The Lord Chief Justice, in delivering the judgment of the court, said the case was extremely simple. The Act of Parliament required the persons who improperly paid away the ratepayers' money to refund the amount to the treasurer of the union when the auditor had disallowed the payment. It empowered the auditors, if they refused, to summon them before the magistrates, who were simply, on production of the auditor's certificate of disallowance, to inquire whether the money had been paid to the treasurer of the union, and if not so paid, then to make an order upon the defendants. The language of the Act of Parliament was so clear that the most rustic intellect could not fail to understand it. He could not understand why the magistrates differed on the first occasion, for there was nothing to differ about. Then on the next occasion they distinctly refused to sign the fresh summons tendered to them, although it was their bounden duty to do so. It appeared that one of them said, "Are we machines to carry out the law?" Well, that was just what they were, and the law which they should have carried out in this case was quite clear. The conditional order must, therefore be made absolute, and with costs.

Public servants, as well as domestic servants, are often very kind and charitable in dispensing other people's money. It is so very nice to do the amiable at a cheap rate, but since the advent of Government Auditors, and Ratepayers' Protection Societies it is rather dangerous to be safe.

### BOOKS RECEIVED.

AMONGST books received we have to acknowledge: "The Sixth Report of the Deputy Keeper of the Public Records in Ireland"; "Tyer's Block Telegraph and Electric Locking Signals." "Details for a Scheme for Facilitating the Purchase of Consols in small sums," by G. C. T. Bartley.

### TENDERS.

For additions to Obelisk Park, Blackrock, for Marcus Goodbody, Esq. Mr. Thomas Drew, F.R.I.B.A., architect:—

|                              |        |   |    |
|------------------------------|--------|---|----|
| George Moyers .. ..          | £4,239 | 0 | 0  |
| W. and A. Roberts .. ..      | 3,900  | 0 | 0  |
| Collen, Brothers .. ..       | 3,897  | 4 | 10 |
| P. Brodigan .. ..            | 3,870  | 0 | 0  |
| J. and W. Beckett (accepted) | 3,560  | 0 | 0  |

FEVER IN DROGHEDA.—The attention of the guardians has been called to the prevalence of fever of a malignant type, cases of which had appeared in various districts of the town remarkable for the neglect of sanitary precautions and the absence of a supply of pure water. We hope the Public Health (Ireland) Bill now before Parliament will be passed at once, and that stringent measures will be enforced for the preservation of the public health.

The Blackburn Art and General Exhibition will open on the 11th of June. The Mayor will attend the opening. The local paper says, in the Fine Arts Department, it believes that the pictures hung are not only numerous, but generally of a very high class. *En passant*, the sanitary condition of Blackburn is very bad, and there is an alarming increase in the mortality returns, despite the improvements said to be making by the local board during the last three years.

### TO CORRESPONDENTS.

PROJECTOR.—Dalkey granite will answer your purpose, and the cost of transmission will not be heavy.

ARCHITECT (London).—We are not inspired by anybody in our comments. A current topic is a fair matter for observation. Our columns are freely open for reply to all who may feel aggrieved.

TRAMWAY.—Experiments are now being made in London, and possibly before long powers will be sought for running tram-cars by steam or other motive power, to the exclusion of horses, but not men.

AN OPERATIVE.—Books suited to your wants ought to be found upon the shelves of the Mechanics' Institute. Such books were to be found there some years ago.

CITIZEN.—Something, we have no doubt, will be attempted. The project need not be a new one. If it has lain by on the shelf sufficiently long, it can be revived again. Corporate philosophy is a sort of proverbial philosophy, at least in this city, where the sayings and doings of our magnates have passed into proverbs, veritable "Dead Sea Fruits."

SANITAS.—This year will, we fear, pass over like the preceding ones, and little will be done. The Liffey must take care of itself, and submit to the loving embraces of the Fodde, which is to be diverted—but by what means we know not.



## L A W .

WATER SUPPLY — IMPORTANT DECISION.  
COURT OF QUEEN'S BENCH.—April 22.

*The Queen at the prosecution of Wallace v. the Belfast Water Commissioners.*—This case came before the court upon motion on the part of defendants to discharge a conditional order already obtained by prosecutor for a *mandamus* to compel the commissioners to furnish to him in each of his 20 houses in Kenilworth-street, Belfast, a sufficient supply of water for domestic purposes. The case of the commissioners was that the Act of Parliament gave them a discretion, and that in the exercise of their discretion they had determined not to supply water for water-closets to houses which were only rated at £8 or less, and that prosecutor's houses were only rated at £8, the reason of their determination being that as there were nearly 22,000 other houses in Belfast of a similar class, if they were to supply water for water-closets to all these, a water famine might possibly occur at a future time. The Lord Chief Justice delivered the judgment of the court, that prosecutor was entitled to the water supply he claimed. The conditional order for a *mandamus* was therefore made absolute against the commissioners. The cant about the danger of a water famine has been often raised in Dublin by certain individuals, to the injury of poor householders and the public health. We hope, from the above decision, that the poor are not to suffer through corporate incompetence and neglect.

## NOTICE.

*It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.*

*Correspondents should send their names and addresses, not necessarily for publication.*

*Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbot-street, Dublin.*

| RATES OF SUBSCRIPTION TO IRISH BUILDER. |       |             |       |
|---|-------|-------------|-------|
| (Town.)                                 | s. d. | (Post.)     | s. d. |
| Yearly                                  | 6 0   | Yearly      | 8 0   |
| Half-yearly                             | 3 0   | Half-yearly | 4 0   |
| Quarterly                               | 1 6   | Quarterly   | 2 0   |

*Terms for Advertising may be known on application.*

*We shall be glad to receive from any of our readers notes of works in contemplation or in progress.*

## IRISH VAL DE TRAVERS PAVING COMPANY (LIMITED).

This Company can now undertake the laying of Pathways, Brewery Floors, Granaries, Platforms, Stables, Garden Walks, with their natural rock Asphalt. Water cannot percolate this pavement; being guaranteed to last for years, it is the cheapest pavement in existence.

Application to the Offices of the Company, 39 DAME-STREET, DUBLIN.

Mines—Travers, Neufchatel, Switzerland. Works—71, 72 SIR JOHN ROGERSON'S QUAY, DUBLIN.

## TO THE NOBILITY, GENTRY, AND ARCHITECTS OF IRELAND.

## MY LORDS AND GENTLEMEN,

Now that the works for which I have contracted with you are nearly completed, and, I trust, to your satisfaction, permit me to return you my very sincere thanks for the kind patronage which, for years past, I have received at your hands; and to add that I shall at all times be prepared to accept of you further favours, and hope, by diligence and application, to give satisfaction generally in all my engagements.

The works at which I am at present engaged are as follows:—

The Exterior of Curraghmore House, the residence of the Most Noble the Marquis of Waterford, for past two years.

The Exterior and Interior of Loftus Hall, County of Wexford, the residence of the Most Noble the Marquis of Ely, for past two years.

Kylemore Castle, County of Galway, residence of Mitchell Henry, Esq., M.P., for past five years.

Ashford House, Cong, County Mayo, the residence of Sir Arthur Guinness, Bart., M.P.

The new Munster Bank, Dame-street, Dublin.

John George Adair's Esq., residence, Rathdair, Queen's County, together with some minor works, which are also drawing to completion.

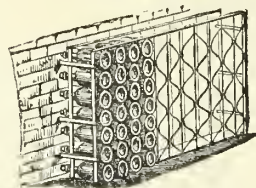
In conclusion, I would beg to add that I am now prepared to undertake any Contracts which I may be favoured with.

JAMES HOGAN AND SONS,  
Plain and Ornamental Stucco Plasterers,  
Cement Workers and Modellers,  
168 GREAT BRUNSWICK-STREET,  
DUBLIN.

N.B.—First-class Workmen sent to all parts of the country.

## FARROW &amp; JACKSON,

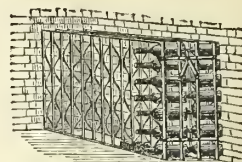
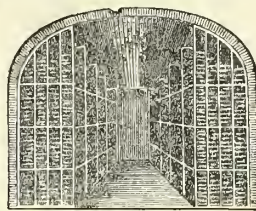
18 Great Tower-st.; 8 Haymarket; 91 Mansell-st., London; and 23 Rue du Pont Neuf, Paris.  
Manufacturers of every description of Iron Wine Bin.



**REGISTERED CELLULAR IRON BINS**, with separate Rest for each Bottle.—These Bins will be found very useful; they are kept in stock in various sizes, from 1 to 20 dozen, or made to order any size or shape, to fit any spare corner. They are peculiarly adapted for private cellars, as no laths are required, and the trouble of binning is avoided. The bottles may be taken out or replaced by a child without risk of breakage.

Illustrated Catalogues on application.

**WROUGHT-IRON BINS**, adapted either for Brick Arched Vaults or Flat Cellars. They combine great strength with lightness and economy of space.



**NEW PATENT DOUBLE BIN**.—These Bins have all the advantages of the "Exhibit" Bins, which have proved a great success, combined with that of taking two bottles in depth, each having a separate rest, and having its neck outwards convenient to the grasp.

Plans and Estimates for fitting up Cellars furnished.

CHARLES FRANCIS, SON, AND CO.,  
CEMENT MANUFACTURERS,

West Medina Mills, Newport, Isle of Wight.

ESTABLISHED UPWARDS OF SIXTY YEARS.

**PORTLAND CEMENT**, according to the Board of Works' Test "Brand Vectis," **MEDINA** (or improved Roman) Cement. Both the above Cements have been largely used by the Home and nearly every Foreign Government.

BRONZE MEDAL,  
LONDON, 1851.

Dublin Depot—15 TALBOT-PLACE.

A. J. ALDRICH, AGENT.

GOLD MEDAL,  
HAVRE, 1854.

## TO COACH BUILDERS, HOUSE DECORATORS, &amp;c.

We beg to announce that we always keep a large Stock of

## Charles Turner and Son's Superior Varnishes,

specially suited for Coach Building and House Decorative purposes, "and for which we are Sole Agents for Ireland;"

Also a Supply of **Ground and Dry Colours, Brushes, &c.**, of best quality, for which we solicit orders.

BOILEAU AND BOYD,  
STEAM LEAD AND COLOUR MILLS,  
92 BRIDE STREET, DUBLIN.

ESTABLISHED A.D. 1700.

TO ARCHITECTS, CONTRACTORS FOR CHURCHES, CHAPELS, SCHOOLS, AND OTHERS  
F. SWINBURN.

MANUFACTURER OF TRANSPARENT

## Oak, Wainscot, Mahogany, Walnut, and Satinwood Stains,

FOR STAINING DEAL, PINE, &c.,

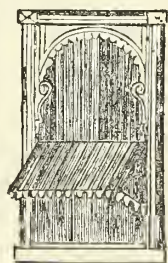
IN LIEU OF PAINT AND TO SUPERSEDE GRAINING.

**THESE STAINS**, having no Painty Matter in them, are *Transparent*; they Colour, but do not obscure the Natural Grain and Feathery Appearance of the Wood, but bring it out in a beautiful manner; the effect surpasses Paint, and they save the cost of Graining, and at less than one-half the expense.

Specimens with Testimonials from Eminent Architects and Prices free on Application or by Post.

12, SOUTHWARK BRIDGE ROAD, LONDON, S.E.

These stains can be obtained in any quantity at the Warehouses of **MESSRS. BOYD & GOODWIN**, 6, Morrison row, Dublin and **MESSRS. DOBBIN & CO.**, 45 & 47 North-street, Belfast, where also specimens may be seen.



Outside Blinds for Shop Fronts.

17 AUNGIER-STREET. 17

F. O'HARA,  
GENERAL WINDOW-BLIND MANUFACTURER,

By Machinery,

17 AUNGIER-STREET, 17  
DUBLIN.

Shop Blinds Made and Lettered to Order.

Coats of Arms Painted.



Transparent and Venetian Blinds

## SHOP SHUTTER SHOES—SHUTTER BARS SUPERSEDED.

**HARRISON'S** Patented Improvements at Reduced Prices, which were shown and so favourably noticed at a meeting of the Architectural Association in London, March 25, 1870.



The special attention of Architects, Builders, Ironmongers, and others is called to the large and varied stock of best Malleable Iron Shutter Shoes for Straight, Bevelled, and Return Square Fronts. They are superior to any yet made, and obviate the objection of cutting away so much wood in fixing. Their shape admits of the best position for the fixing screws, and the solid bead is a great protection to the corners of the shutters during removal. Illustrated price prospectus on application.

**JAMES HARRISON**, Manufacturer, 15 and 35 Union-street, Borough, London.  
COUNTRY ORDERS PROMPTLY EXECUTED.



# The Irish Builder.

VOL. XVI.—No. 347.

*Public Records in Ireland.\**



THE present Report is one of the most interesting yet issued; for, besides reporting the good progress made in the classification and arrangement of numerous valuable documents, we are afforded a large amount of historic information, both by extracts from

the MSS. and descriptive particulars by the officers engaged. In addition to the Report of the Deputy Keeper, Mr. Samuel Ferguson, there is an appendix containing: "Extract from Report of James H. Davies, Esq., on the residue of the Records removed from the offices of the late Right Hon. Edward Litton, M.C."; "Report of Sir J. Bernard Burke, Ulster, Keeper of the State Papers"; "List of Chancery Bills and Answers found out of place"; "Extract from Report of James Mills, Esq., on the arrangement of the Records of the Court of Common Pleas, removed from the vaults of that court"; "Extract from further Report of the Assistant Deputy Keeper on the Records of the Palatinate of Tipperary, including—Cause List of Pleadings in local Chancery, Abstract of Patent Rolls of ditto"; "Extract from Report from Henry Berry, Esq. on the Records of former Writ, Appearance, and Seal Office of the Court of Queen's Bench"; and, lastly, "Report of J. T. Gilbert, Esq., Secretary to the Public Record Office of Ireland, to the Right Hon. the Master of the Rolls in Ireland, respecting the Facsimiles of National MSS. of Ireland."

The Deputy Keeper, in his Report, again refers to the expediency of continuing some more of the practically useful publications left unfinished by the late Record Commissioners for Ireland, and for which material exists in an advanced state.

Mr. Gilbert has selected, classified, and arranged the specimens of the documents for reproduction by the photozincographic process at the Ordnance Survey Office, to accompany the letterpress also prepared by him as editor of the "Facsimiles of National Manuscripts of Ireland." The Deputy Keeper says the letterpress matter of the first portion of this work has been for some time in type in Dublin, awaiting final impressions of the plates, which are now understood to be in process of printing at the Ordnance Survey Office, Southampton. We cannot see any reason why the plates could not be executed in Dublin.

In relation to the work on which Mr. Gilbert is engaged, the Deputy Keeper, in his report to his Grace the Duke of Abercorn, expresses the great satisfaction he experiences that a work of so much curiosity and splendour of material, and of such great erudition and accuracy in its editorial treatment, has been advanced so far towards completion, in connection with the Record Office in Ireland. This opinion, we think,

will be fully endorsed by many who know aught of the work.

The literary inquiries during the year embraced: Inquisitions—Sligo and Kerry; Chancery Bills and Answers; Civil Correspondence; Patent Rolls; Hearth Money, Rolls (Dublin); Decrees of Innocence; Quit-rent Books; Wills and Will Books.

In the Report of Sir Bernard Burke we have information as to the arrangement and classification of the State Paper Department; secondly, of presentments, affidavits, examinations, informations, &c.; thirdly, heads of bills, public and private, of the Irish Parliament, 1711-1782; fourthly, transmisses of bills, 1753-1780; fifthly, petitions, and other papers connected therewith, being addressed to the Lord Lieutenant and Council, and Lords Justices of Ireland, at different times.

The presentments alluded to in the second portion, with the other documents, relate to political offences, murders, robberies, burglaries, smuggling, abductions, rapes, loughing of cattle, taking illegal and forcible possession, arson, running of goods, &c. The sworn informations are very numerous, and concerning them Sir Bernard Burke remarks:—"The collection affords important information as to the state of the country between the years 1701 and 1800." They must undoubtedly be valuable, extending as they do over the entire of the eighteenth century.

A copy of one of the presentments is given, made at the General Assizes of the City and County of Londonderry in 1722, when one Rory Roe O'Haran, of Culnegoopagh, in the County of Londonderry, was presented by the grand jury "to be a Tory, robber, and rapparee out in arms and upon his keeping, and not amenable to his majesty's laws."

Among the petitions is one to his Grace the Duke of Bolton, the Viceroy—"The humble petition of Patrick Bellew, Esq., and the Right Hon. Frances Viscountess Dowager Dillon, his wife," in relation to the Castle of Loughlin, which was set on fire. There is another petition in relation to an old Dublin worthy, David La Touche, in the first years of the eighteenth century. This petition is worth reproducing. It is addressed to their "Excellencies the Lord Justices Genl and Genl Governrs of Ireland":—

"The humble petition of David Latouche, of the City of Dublin, merchant. Humbly sheweth—That your petition<sup>r</sup> is about to build a house in Castle-street, the backside of which adjoins the Castle ditch. That the said ditch is filled up with coal ashes, excrement, and filth, thrown there by neighbours for want of a fence, which is a great detriment to your pet<sup>r</sup> as well as an annoyance to the Castle. That your petit<sup>r</sup> humbly conceives it will not be any inconvenience to his Matie if your pet<sup>r</sup> carries his walls home to the Castle wall at his own cost, he entering into an obligation to your Excell<sup>ies</sup> to put back his wall at his own charge to the place w<sup>ch</sup> shall be judged to belong to him, immediately upon yo<sup>r</sup> Excell<sup>ies</sup> signifying yo<sup>r</sup> pleasure therein."

David La Touche's petition was referred for report to Thomas Burgh, the Engineer and Surveyor-General, whose name may be found in connection with that of Sir Edward Lovet Pearce during the building of the Irish Parliament House. Burgh reported that there were several encroachments made upon the Castle ditch, that it was disagreeable to the sight and smell from the filth that was thrown into it, and moved that some method might be taken to oblige those who made such encroachments to deliver up the possession of the same. Order was at the same date given to the Attorney-General to enquire

into the titles. The Surveyor-General recommended the enclosure, but left it to his Majesty or his advisers to consider whether they should proceed at once to do the necessary work, or permit the petitioner, Mr. La Touche, to do it on the terms he proposed.

We have another memorial of Mr. La Touche many years after, in which he alludes to the carrying on of sundry buildings at the Castle, in the rear of memorialist's house, in 1750, which so damaged it as to render it unsafe, and to oblige the banker to take it down and rebuild it. Mr. La Touche claimed the sum of £918 14s. 11d., after making proper allowances for old materials; and he states in his memorial that of the above sum only £541 6s. 11d. was claimed by him as a loss in taking down the said house, though it had cost him £1,500 for the building so late as the year 1727. The petitioner also states that the further sum of £377 8s., part of the said sum of £914 14s. 11d., was paid out of his pocket for house rent and sundry expenses he was put to for carrying on his business during the taking down and rebuilding of the house he then resided in. The petition ends thus:

"That notwithstanding your mem<sup>rs</sup> several applications since for the reimbursement of the sum of £914 14s. 11d., so long since as the year 1750, your mem<sup>r</sup> has not been paid the same, the interest whereof amounts to the sum of £275."

This last petition was addressed by Mr. David La Touche to his Grace the Duke of Devonshire, when Viceroy. Such documents as the above are both interesting and useful; they throw side lights upon our local history, and they help to clear up and confirm what would otherwise appear doubtful.

The matter contained in Appendix 7, on "Facsimiles of National Manuscripts of Ireland," being the report of Mr. Gilbert, is the most interesting literary portion of the Sixth Report. It contains particulars concerning the history, subject, and material, of many valuable MSS., including the Domnach Airgid MS.; the ancient Latin version of the Gospels; the Psalter styled Cathach; the Book of Durrow; the Book of Kells; the Book of Dimma; the Book of Mulling; the Gospels of Mac Regol; the Book of Armagh; the Manuscript of Maelbrigte Mac Durnan; the Book of Hymns; the fragment of Leabhar Na H-Uidhri; the Manuscript by Maelbrigte Hua Maeluanaigh; the Annals by Tighearnach; and the Ancient Gospels.

We had intended to have made some extracts from Mr. Gilbert's Report, but we must defer it to another issue. The first part of the Facsimiles of the National Manuscripts is approaching completion. The work is in imperial folio size, and the first part will contain forty-five coloured plates. The written matter of each specimen is printed opposite to it in the original language, line for line, without contractions. The concluding words of Mr. Gilbert's Report say:—"The plan for the publication, that the specimens should be reproduced in accordance with the originals, in dimensions, colours, and other features, renders much descriptive details on these heads unnecessary here. The certification of the final impressions of the plates executed at the Ordnance Office, Southampton, and the custody of the documents sent to be photozincographed there for this work, have been entrusted to W. B. Sanders, Esq., Assistant Keeper of the Public Records in England. It is unnecessary to observe here that many difficulties are incidental to a publication of this nature,

\* "The Sixth Report of the Deputy Keeper of the Public Records in Ireland." Dublin: Alexander Thom. 1874.



more especially when, as in the present instance, the editorial and artistic portions have to be carried on in two places—Dublin and Southampton. In the next issue the series will be continued from the early part of the twelfth to the end of the thirteenth century."

With this extract we will close our present notice, by observing that the perusal of the "Sixth Report of the Deputy Keeper of Public Records in Ireland" has given us more pleasure and information than any we have hitherto read.

#### PRISON MANAGEMENT AND MUNICIPAL EXTRAVAGANCE.

THE reports of the Inspector-General of Prisons (Hon. C. Bourke) on the Dublin jails are highly suggestive, although saddening in the extreme. This city is taxed with the cost of these Government prisons, and the Corporation appoint the Board of Superintendence, and like everything else managed or meddled with by our present civic magnates, incapacity is plainly apparent.

The number of commitments of juvenile offenders shows a great increase, and Dublin unfortunately is made to supply the larger number. Juveniles that ought to be sent to reformatories are sent to one or other of our city prisons and come out again in many cases more hardened and depraved. Last year shows an increase of juvenile criminals of 296 as against 256 of the previous year. The entire number of prisoners committed to Richmond Bridewell during the year was 4,390, being an increase of 1,036 over the preceding year. The Inspector recommends that the Board of Superintendence should initiate a system of punitive labour as a check, suggests the infliction of occasional corporal punishment, which he believes would be a salutary deterrent. It would appear from the report of the Inspector that the relaxation of the law affecting the sale of drink has added largely to the increase of crime. Of this we have no doubt. Drink is the parent of many evils. Attention is called to the want of cellular accommodation and of means for enforcing punitive labour. There is a decline in the amount realised by prison labour outside the jail, although higher than other jails.

Coming to the question of salaries, the Inspector instances two medical officers receiving a salary of £425 for attending each on alternate days, and complains that they do not see the inmates before they are classified, and contrasts this omission in the performance of the duty which the act requires, with the case of the medical officer of Belfast, who only receives £75 a-year. The formation of a good secular library is recommended, and measures to improve the security of the jail. The efficiency of the governor of Richmond Bridewell is spoken highly of, who, it is said, displays zeal, energy, and attention in the discharge of his very arduous duties.

In respect to Grangegorman Female Penitentiary, similar wants are pointed out, and similar measures, as far as circumstances allow, are advised. The number of commitments here were 4,240 as against 3,722 in 1871, and 3,335 in 1872. Grangegorman, like Richmond, shows how crime is largely increased by the curse of drunkenness. Infants over a year old are left with their mothers in this prison, instead of adopting the workhouse plan, and thereby giving effect to the penal consequences of crime. The Inspector calls attention here to the comparatively little use made of the laundry, which would, if properly managed, afford suitable and reproductive employment. He disputes the truth of the alleged difficulty in obtaining washing contracts. The maintenance of each prisoner during the late year cost £38 12s. 3d., and the entire cost of this prison is returned at £4,942 14s.; but mark, citizens of Dublin, of this the proportion for officers alone was no less than £2,108 6s. 3d.

No one after this need marvel why the city is taxed when it costs so much for maintaining an official staff for one single mis-called penitentiary.

It would be madness, or rather downright folly, for any honest man to expect that a Board of Superintendence elected by our present Municipal Council will do aught to reform this grievous system of flagrant mismanagement. The ratepayers have certainly the remedy in their own hands, and it is their bounden duty to reform the abuses of the Corporation by improving the representation. A Ratepayers' Protection Association has now been in existence for some months, and by the address of the committee, issued a few days ago, it will be seen how far they have been successful in checking the tide of municipal corruption and jobbery. Citizens of Dublin! strengthen the hands of the committee by your adhesion and support, and you will not only lighten the taxation which presses so heavily upon your shoulders, but you will also put an end to the gross abuses which have for so many years scandalized this city. To do so is a noble, non-political, and unsectarian work, and, if performed, its effects will be felt, not only in Dublin, but throughout Ireland, for many years to come. It is a sad sight where citizens are demoralized by corrupt manners and institutions, but the state of society must be rotten indeed if civic rule, instead of being guardian of our rights, becomes their fell destroyer.

#### THE COLLAPSED MAIN DRAINAGE SCHEME.

Just as we predicted several months ago the revised Main Drainage Scheme, with estimates, would have to be again revised, re-amended, and re-reported upon. It is difficult to say whether it is the two engineers that are leading the Main Drainage Committee by the nose, or the latter that are worrying the former for the purpose of appeasing the citizens. One thing, however, is certain, that a more shameful and scandalous series of transactions have never taken place than those connected with our Water Works and Main Drainage. The latter project is beginning to stink in the nostrils, not only of the people of Dublin, but the whole Empire.

Contractors and their foremen in London laugh outright at the mention of the Dublin drainage. The representative of one of those who competed was heard to say some weeks ago that neither of the two engineers nor the Corporation itself knew what they wanted. Plans and specifications were originally prepared for a scheme which, if commenced, no contractor would have completed for a million of money, and since that time there has been a lot of trickery to reduce the contract to reasonable dimensions. The last effort is as little successful as the former, for, if commenced, the work could not be proceeded with, save by instalments, and with the certainty that the cost would in the course of a few years, before half complete, reach upwards of half a million, the superintending staff swallowing no small proportion of the sum.

We think the time has at last come for some decided action on the part of the ratepayers by a requisition directly to Government through the House, or at least to the Local Government Board. The Liffey needs purification at once, and if the citizens have to wait for the Main Drainage to be complete before they are afforded relief, they will have to run the gauntlet of many epidemics we fear. The Main Drainage Committee is worse than useless, because they have for years and are still continuing to squander public money, with no other results than that of benefiting their own legal agents and other kindred fraternity.

A commission of inquiry is, we think, imperatively necessary, and it would be desirable that one should be held, so that the whole history and surroundings of the

Dublin Main Drainage scheme, from its first inception to the present time, might be made public. The citizens of Dublin have been already too often befooled on the head of this drainage project, and before one sod is turned of the work a Government inquiry should take place, so that the public might be placed in possession of the facts, and merited exposure and condemnation brought home to the parties who have been guilty of perpetrating, or striving to perpetrate, for years a gigantic fraud.

We will not lose sight of the matter, and we shall take care, as far as lies in our power, a repetition of the transactions associated for some time with the scheme will be rendered for the future impossible.

#### ARCHITECTURAL ASSOCIATION OF IRELAND.

AN ordinary general meeting was held at the rooms of the association, on Thursday evening, 28th ult., the President in the chair. Members present—R. S. Swan, Thomas Drew, J. P. Davis, J. C. Wilmot, D. J. Freeman, C. Allen, H. Oldham, H. Wilmot, J. Duff, W. O'Neill, J. Knox, T. H. Longfield, J. A. Barry, C. Lanauze, J. Coppinger, J. L. Robinson, &c.

The minutes of the previous meeting were read and confirmed.

The hon. secretaries announced that Mr. Arthur Hill had presented a copy of his work on "Cormac's Chapel" to the library. The thanks of the association were voted to Mr. Hill.

Mr. Thomas Drew, R.H.A., then read a paper on "The Practical Application of Wires to Correct Acoustic Defects in Buildings," after which a discussion, joined in by Messrs. Davis, Allen, Freeman, and other members, took place.

Mr. J. L. Robinson proposed, and Mr. R. S. Swan seconded, a vote of thanks to Mr. Drew, which was carried by acclamation, after which the meeting dissolved.

#### THE SOCIAL DIFFICULTIES OF THE FUTURE.

MR. Edward Jenkins, M.P., the author of "Ginx's Baby" has presented another work to the English reading public which is full of thought, with pictures that are stirring and eloquent as well as epigrammatic. The substance of this work was first delivered as a lecture to American audiences some time back, but now it is expanded into a volume entitled "Glances of Inner England." The work is well worthy of perusal, and the majority of the opinions expressed are just.

The social perils of the future of society are apparent to all deep thinkers, and it behoves our statesmen and legislators to give them careful consideration, with a view to their prevention or mitigation, should they overtake us sooner than we expect them. The growth of pauperism, crime, drunkenness, the conflict between capital and labour, and the unfriendly relations existing between the industrial and the upper classes of society, are some, but not all, of our growing perils.

Mr. Jenkins very tersely states what he believes to be the principal perils of society, which are four in number. He says they arise—1. From the efforts made by the upper and wealthy classes to retard the advancing power and resist the just claims of the working man. 2. From the mass of pauperism which I have described, which lives on the rates, and seems to have such a horrible mystery of propagation. 3. From the terrible unparalleled power of degradation which, with increasing tyranny, is wielded by strong drink. 4. From the deficiency of incitements, moral and material, to thrift and ambition among the working classes.

Now the parent of much of these evils is drink, for it renders thrift impossible, and leads from pauperism to crime. The sober man, if he is really in earnest, although his facilities for improvement according to his location may



be small, yet he will possess a self incitement or prompting to add to his moral and material worth. The spread of education will doubtless supply more incitements independent of associated schemes for elevating the working man; but until the legislature puts more restrictions on the liquor traffic than at present exist, we fear that the degradation arising from drink will even assume a more terrible form. Thrift and honest ambition are more needed among the working classes of Great Britain. Co-operative labour has done much, and wider fields still exist in the interest of the working class to participate in the benefits it will bring them; but education, industry, and strict sobriety are indispensable.

#### BOOKS RECEIVED.

*The House Owner's Estimator*, &c. By James D. Simon, A.R.I.B.A. Edited and revised by Francis T. W. Miller. With numerous illustrations. London: Lockwood and Co.

THIS work will be found what it professes to be, and from an examination of it we can pronounce it a really useful volume, both to builders and operatives as well as to surveyors. As a price-book it will be found eminently serviceable in the hands of unprofessional folk, either as householders or traders, as it will afford them reliable information as to the cost of building, altering, or repairing. Everything in relation to house-building, from excavation to completion, is given, with market value of labour and materials. Concrete works are also treated of, and illustrations are given of houses built in terraces, shop-fronts, bay windows, and the specifications in connection. Embodied will be found the gist of the Report of the Institute of British Architects on Dilapidations, arranged for the easy reference of landlords and tenants. Appended we have the Metropolitan Building Act on the Regulation and Supervision of Buildings, which will be found to be a valuable reference, as also the Metropolitan Board of Works Regulations in relation to houses, streets, roads, and to matters in general connected with architects, surveyors, builders, and owners of property, and the law in relation thereto. The prices upon which the calculations are based in respect to labour is at the rate of 8½d. per hour, and the present London prices of materials—brick, stone, cement, lime, sand, lead, timber, and painters' materials. The volume is replete with practical information, and contains a vast quantity of matter judiciously and well arranged, and equally well illustrated. In a word, we think "The House-Owner's Estimator" will meet all the requirements its talented compiler wished it to do, and which its editor rendered it still more certain to fulfil.

*Remarks on Impending Sanitary Legislation for Ireland*. By Thomas Wrigley Grimshaw, A.M., M.D., &c. Dublin: Printed by Browne and Nolan, Nassau-street.

DR. GRIMSHAW is certainly entitled to speak upon the sanitary question; and, whether we differ with him in some of his details, we are free to confess he presents the public with a pamphlet containing much that is valuable and worthy of adoption. No one can tell how the Public Health Bill for Ireland which Sir Michael Hicks Beach, our Chief Secretary has obtained leave to introduce, will turn out. The English Public Health Act of 1872 has been an acknowledged failure, though containing many wise provisions. The spirit of the act is good, but the machinery by which it was intended to set it in motion will never work well.

We have often pointed out in this journal the incapacity that attends sanitary administration, through the ignorance of the officers appointed and through the evils attendant on divided authority. The acts in one way or another bearing upon the public health are almost legion, and not a few directly contra-

dictory to each other. Until a codification of our sanitary laws is effected, and the acts made simple and clear, and officers possessing the requisite technical and practical knowledge are appointed, sanitary administration and inspection, even its simpler forms, can never be satisfactorily carried out.

Dr. Grimshaw points out what he thinks are the needed requirements for this country, and he includes them under the following heads:—1st, a codification, consolidation, and slight amendment of the existing sanitary laws; 2nd, uniform authorities, without clashing of jurisdiction; 3rd, convenient areas of administration, with easily worked sub-districts; 4th, a complete executive organization; 5th, constant supervision by the central authority; 6th, security for certain amount of independence for the local officers of the local authority; 7th, all sanitary laws should be compulsory, except certain permissive powers granted to the central authority.

Dr. Grimshaw then proceeds to consider these heads separately, in a clear and intelligible manner. Under the fourth head he makes a "complete central organisation" to consist of the central authority, the chief medical officer of health, the rural district medical officer of health, local medical officer of health, inspector of nuisances, and superintendent inspector of nuisances. This is a medical organization altogether, and if carried out in the way Dr. Grimshaw suggests, the relieving officers of the unions would be the inspectors of nuisances, and the superintendent inspectors of nuisances would, in addition to their duty of supervising the local inspectors, have also, it seems, to act as clerks to the medical inspectors or urban officers of health. We do not agree with this arrangement. Relieving officers at present in Ireland are not in general fitted for the duties of sanitary inspectors. In England at present the town or district surveyor sometimes acts as an inspector of nuisances as well as surveyor, and where the area is large, one or more assistants are appointed, on whom devolve the duty of sanitary inspectors, and who report through the medical officer of health or the Surveyor of the local board of the district. Sanitary organization is, of course, still most incomplete in places, notwithstanding the late act. An efficient sanitary inspection, with all due respect to the medical profession, cannot exist if entirely in the hands of a medical organization. The sanitary difficulty is an engineering question, and to a great extent too, as well as a medical one, but on this part of the subject we have often before discussed, and will again.

Dr. Grimshaw advocates then the appointment of the chief medical officer should be by the State, and the medical inspector by the Local Government Board itself, and paid by the State. This has been suggested before, and there is much to say in its behalf, although we are adverse to the gradual spread of a centralism that is going far to destroy the spirit and power of local and municipal bodies, a spirit and privilege we would like to see preserved, notwithstanding some miserable failures in this country. Dr. Grimshaw would prefer to see the whole poor law medical service and sanitary service constituted into a State Civil Service, with admission by competitive examination. Without going over the entire scheme of sanitary administration, as mapped out in the pamphlet before us, we take note that the total annual cost of the sanitary organization proposed by Dr. Grimshaw is calculated at £100,000 a-year, which would represent, it is said, a tax of 1d. per acre per annum, or less than 1½d. in the pound on the present poor-law valuation, or about ¾d. in the pound on the real valuation of property in Ireland. The commissioner at the head of the department is put down at £1,500 to £2,000 a-year; the medical inspector about £1,000; the dispensary officers in rural and but sparsely populated districts from £50 to £75 per annum; and in urban from £75 upwards; and urban health officers £300 for the smaller, and £500 to £1,000 for the larger towns.

As we intend to revert again to the subject of Irish sanitary legislation, and to a discussion of the merits of Sir Michael Hicks Beach's bill, we will not enter to-day further on the question raised in this pamphlet. In conclusion, we may add that Dr. Grimshaw believes that three Acts of Parliament are necessary in order to fairly mobilise Irish sanitary machinery—1st, an act to effect sanitary organisation; 2nd, an act for the amendment and codification of sanitary laws; and 3rd, an act to substitute union for divisional rating, and for the alteration of the mode of electing local, urban, and rural authorities. Whatever form the organisation may eventually assume, we agree that a certain amount of independence should be secured for the local officers from local influence, whether these officers are of the medical or engineering professions. The law should also be compulsory, for the interests of public health requires it as well as that of education.

#### THE PUBLIC HEALTH (IRELAND) BILL.

WE must postpone an examination of this bill, as it is suggestive of many considerations. It has forty-three clauses in all. The urban districts are to be the city of Dublin, towns corporate and municipal; the Poor-Law Union is to be the area for the rural district, and the Board of Guardians to be the sanitary authority for the same, with exception of such portions as may be comprised in the urban district. In regard to the powers and duties of the sanitary authorities, they are to possess all powers, rights, duties, capacities, liabilities, and obligations under the Sewage Acts, the Nuisance Removal Acts, the Common Lodging-house Acts, the Artizan and Labourers' Dwellings Acts, and the Bake-house Regulation Act. The following is one of the most important clauses in the bill, from a medical point of view at least, as, no doubt, the bill, in regard to the appointment of dispensary medical officers, will meet a certain amount of approval:—

"Every medical officer of a dispensary district shall be a sanitary officer for such district, or for such part thereof as he shall personally be in charge of, with such additional salary as the Local Government Board, with the consent of the Commissioners of her Majesty's Treasury, shall determine or approve; and every sanitary authority, whether urban or rural, shall appoint in addition an inspector of nuisances, and such other sanitary officers, including a superintendent officer of health, when deemed necessary, as the Local Government Board shall in each case direct, with such salaries, or additional salaries, as the said board, with such consent as aforesaid, shall determine and approve; and the said board shall assign to the dispensary medical officers, to the inspectors of nuisances, and to the other sanitary officers, if any, and to the superintendent officer of health, if such an officer be appointed for the sanitary district, their respective duties and functions in the discovery and inspection or removal of nuisances, in the supply of pure water, in the making or repairing of sewers and drains, or in generally superintending the execution of the sanitary laws within the district."

Compulsory powers are given to purchase lands for hospitals, and some provisions of the Lands Clauses Consolidation Act are incorporated with the Burial Grounds Act. If the bill reaches committee this session, it must certainly come forth in an altered form to secure general approval, for it stands in need of many emendations. With the failure of the English Health Act of 1872 to act as a deterrent, caution is absolutely necessary in dealing with the case of Ireland. We are not so sanguine as to expect that the bill for Ireland will be a success, for, after all, sanitary legislation must for a considerable time be tentative, and it is time and experience alone that can prove the value or defects of any act dealing with such a subject as the public health and all that appertains thereto. As much as Ireland stands in need of an efficient measure, we do not desire to see it hurriedly carried through the House until properly canvassed and discussed at length in all its bearings.



PUBLIC RIGHTS AND PUBLIC  
NUISANCES.

## INSPECTION OF TRADES.

## SIXTH ARTICLE.

In our last article we treated upon public and private slaughter-houses and cow-houses in connection with dairies, and pointed out the nuisances generally associated with their management. We will now take cognisance of other trades or callings which call for frequent inspection, and which beget intolerable nuisances betimes.

The pig is a very useful animal as an article of food, but more particularly in this country the pig has been for time immemorial the pet of the peasant. It has helped to pay the rent, though it rarely, in the person of the mere day labourer afforded him any sustenance. Being obliged to sell it instead of killing it for his own use, the pig has perhaps contributed more to Pat's discomfort in the long run than otherwise. Often reared in the chimney corner, as far as its bedding was concerned, it was quite as well housed as the family circle, though betimes it suffered as much from lack of air as the human beings that bedded themselves and breathed by its side.

Piggeries should at once be got rid of, not only within human habitations, but wherever situated near to them. They should not be tolerated in populous districts, and, wherever kept, their sheds should be well drained and paved. In suburban districts, when properly housed, no danger may exist; but in the city they are a continuous evil, and should not under any pretence be permitted. Offenders should be cautioned, and the nuisance explained to them; and should they still persist, they may be summoned to appear before a magistrate, and, on the nuisance being proven, fined. A repetition of the offence will bring a cumulative penalty. Bake-houses also need a frequent visitation on the part of sanitary inspectors and medical officers of health, to see that all the troughs and tables used are kept perfectly clean. The law in respect to them is laid down in the 26th and 27th Viet. cap., 40. The inside walls and ceiling or top of every bake-house situate in any city, town, or place containing according to the last census a population of more than five thousand persons, and the passage and staircase leading thereto, shall either be painted with oil or be lime-washed; where painted with oil, there shall be three coats of paint, and the painting shall be renewed at least once in seven years, and shall be washed with hot water and soap once at least in every six months; where lime-washed, the lime-washing shall be renewed once at least in every six months.

Every bake-house, wherever situated, must be kept in a cleanly state, and be provided with proper means for effectual ventilation, and be free from effluvia arising from any drain, privy, or other nuisance. If the occupier of any bake-house fails to keep the same in conformity with the act, he shall be deemed to be guilty of an offence against it, and be subject in respect of such offence to a penalty not exceeding five pounds.

The court having jurisdiction under this act, may, in addition to or instead of inflicting any penalty, make an order directing that within a certain time, to be named in such order, certain means are to be adopted by the occupier for the purpose of bringing his bake-house into conformity with the section of the act. The court may, upon application, enlarge any time appointed for the adoption of the means directed by the order, but any non-compliance with the order of the court shall after the expiration of the time as originally limited or enlarged by subsequent order be deemed to be a continuing offence, and to be punishable by a penalty not exceeding one pound for every day that such non-compliance continues.

It should be known that the officers of health, sanitary inspectors, or any other person appointed by the local authorities may enter any bake-house at all times during the

hours of baking; and that any person obstructing him, or refusing admission, shall for each offence incur a penalty not exceeding £20.

Under the Sanitary Acts, dangerous or noxious trades are divided, for public health purposes, into four classes. The first class includes those in relation to fires and explosives, such as petroleum works or stores, gas works, and the like. Both petroleum and gas works should be removed as far as possible from the centre of the population. Gas works particularly cause a great nuisance, and are dangerous; yet many of them are still to be found in our cities and towns situated in most populous districts. The leaking of gasometers and the escape of the foul water contained in them has been the frequent cause of polluting the wells of a whole neighbourhood. Here in Dublin the mains of our gas works are always in a state of leakage, but our corporate authorities or their officers do not care to trouble their heads about the nuisance. The question should be brought under the attention of the Local Government Board by a requisition on the part of the ratepayers. Gas works or gas manufacture may also be classed among the poisonous or noxious trades, and they are, therefore, included in the first and second classes of dangerous trades.

Among the second division of noxious trades, lime-kilns are included, which give out enormous volumes of carbonic acid, both from the limestone burned and from the fuel employed, and they have been the cause of suffocating persons living in the immediate neighbourhood of them. Smelting works from which sulphurous acid, arsenic, &c., are allowed to escape, are also noxious works, and highly dangerous. Soda works, from which hydrochloric acid comes as a refuse product, are nuisances, for it has been proven that chlorine, hydrochloric acid, &c., are carried in the air for long distances. In France they are placed in the first class of noxious trades. In connection with such trades every precaution should be taken, and the processes should be conducted in closed vessels where practicable. It is recommended that vapours such as hydrochloric acid should be absorbed in water, being made to pass through high chimneys in which water is continually trickling, or by other suitable methods.

The third division of noxious trades includes those from which dust is continually arising, such as marble-workers and polishers of various sorts, and where emery is used, as steel polishers. The danger of these trades is from phthisis, but they do not create any great nuisance, except in the case where artificial manures are manufactured. The manure is made by ground-up coprolites and bones, frequently mixed with a certain amount of putrid organic matter, and treated with concentrated sulphuric acid, which gives off, when dry, a very fine dust which is very irritating, and which, if blown out of the premises, may cause a considerable nuisance to the neighbourhood.

The smoke from factory chimneys is in many cases a nuisance, and smoke-consuming furnaces should be insisted upon by the authorities. In London and throughout England smoke-consuming furnaces are at present largely used, and in a few years they will have to become general.

The fourth division of noxious trades are those in which foul organic vapours are numerous. Places in which horses are slaughtered and their carcasses turned to various uses, necessitating such other occupations as bone boilers, soap makers, &c. Then there are those of the albumen makers, gut cleaners and preparers, and other contingent offensive trades. Varnish makers may also be considered noxious trades, as the fumes emitted by the boiling of resins are very offensive. In these cases it is recommended that the best plan is to insist that the vapours from the boilers (which should be provided with covers that can easily be lifted up and let down) be conducted into a flue which passes into a furnace of the boiler itself, so that they may be effectually burnt. This is

now being done extensively. The accumulation of rags, bones, and other offensive matters at marine stores should be prohibited, and should not be allowed to remain longer than is absolutely necessary.

Precautions lead to the prevention of diseases; and when a manufacturer is found to be knowingly neglecting to adopt the precautions recommended for the safety of the public health, he should at once be compelled to abate the nuisance, or, if found necessary, to remove his business to some other place. No manufacturer should be continually annoyed by inspectors of nuisances, unless a clear case can be proven against him that he is infringing the acts, and that his works are carried on in a dangerous manner. Every citizen and trader has a right to be protected by the law who takes all the precautions he can, and does his utmost to comply with the acts; and it is the duty of the officers of the sanitary authorities to afford every information in their power of the requirements needed to prevent a nuisance, before prosecuting for its abatement or entire removal.

Sanitary inspection and administration must not be carried on under the cover of the law for the persecution of individuals or communities, but for the protection and safety of the many. That it may be carried on for the public good, it is necessary that those entrusted with legal powers should wisely and legally use them.

ON THE PRACTICAL APPLICATION  
OF WIRES TO REMEDY ACOUSTIC  
DEFECTS IN PUBLIC BUILDINGS.\*

EVERYONE here has heard something of this lately novel theory—that the application of a few strands of copper wire will seriously affect and modify the body and currents of sound in a public assembly-room. It had its origin first, I believe, in America. I cannot now lay my hands on the proceedings of the American Institute of Architects, in which I first met with it; but those who may be curious in pursuing this subject more exhaustively than I have leisure to do, will, no doubt, find the proceedings of the American Institute I refer to, among the papers possessed by our Institute.

I confess I was incredulous to some extent when the theory came before me in the guise of a Transatlantic “notion” only, although I hold in deep respect the practical, common-sense character of American architects; but when the efficacy of the theory was forced on me by the success of experiments made in St. Andrew's Church, in this city—a success unanimously attested by clergy, parishioners, and all parties interested,—I felt constrained to be attentively respectful. There is a moral to be pointed from this circumstance not out of place here, namely, that there is something akin to Irreverence in receiving with anything but grave and respectful attention any theory propounded with reference to great economic laws in this wonderful universe.

Of the many phenomena whose occult laws we still strive to master and fix, those connected with Sound—singularly wonderful, as late experiments have demonstrated them to be—have as yet but little been reduced to system, at least to such system as enables us architects to apply rough-and-ready conclusions to buildings with which we have to do.

I do not profess to have been a deep student in acoustic science, nor do I presume to instruct you in the first elementary phenomena of it, with which I take everyone to be acquainted; but I take you to a building at once to apply remedies to acoustic defects. I should mention that my attention has been brought to this subject chiefly by the publication of an intelligent and intelligible account of experiments made by the Rev. Robert Samuel Gregg, D.D., now Dean of

\* By Mr. Thomas Drew, R.H.A., F.R.I.B.A. Read at meeting of the Architectural Association of Ireland, May 28th, 1874.



St. Finbar's, Cork, in Mr. Burges' cathedral there. Dr. Gregg has attempted to draw no conclusions from, or theorise on, his experiments; but the phenomena he has recorded appear to me so satisfactorily consistent with what we know of acoustic operations, and with each other, that I feel perfectly convinced of the accuracy, intelligence, and truth of his observations. I fancy, on considering them, I see my way to lay down some general notions as to where to apply wires with some of that reason which we are told is required even in "roasting eggs," and not at hap-hazard, as most of the wire-experimenters appear up to this to have but done.

I may perhaps best here introduce *in extenso* Dr. Gregg's interesting letter, begging that you will attentively bear his experiments in mind when I come to the application of theories further on. He communicates to a correspondent as follows:—

"Having seen in the newspapers some notices of the use of wires for correcting the echo by breaking the waves of sound in churches and public buildings, we were anxious to try the experiment in the Cathedral of St. Fin Barre, Cork, the nave of which is of great height—between sixty and seventy feet—and narrow in proportion to its height. We were unable to obtain any reliable information as to the placing of the wires, so that what we did was very much in the way of experiment. I should state that the desks for the officiating clergy and the choir are placed at the intersection of the transepts, nave, and chancel, so that this may be regarded as the point from which the sound starts. The organ is placed in a gallery at the west end, and the organist seated in this gallery has always heard much more distinctly than the people sitting about two-thirds down the nave, particularly those close to the pillars; but the echo seemed to render the sound indistinct, more especially in the transepts, the north and south walls of which presented a large flat surface, and appeared to us to be probably the source of the echo.

At first we tried the wires strained at a considerable height, the level of the triforium, but they produced comparatively little effect; we then strained a double course of wire at about a height of twelve or fifteen feet round the large piers of the central tower, so as to encompass the choir, and other wires completely across the nave and side aisles, and the effect was certainly very good. There was a greater distinctness of sound throughout the building. Our organist, who is a very accomplished musician, did not know that the wires were put up, and remarked to me one day after service that he did not know what it was, but that everything seemed to him in better tune.

This encouraged us to make further experiments. We then strained three wires completely across from the south wall of the south transept to the north wall of the north transept, so as to pass over the heads of the choir, but the effect was quite too great—it seemed to kill the sound, every sound seemed to stop at once, all resonance was gone. These wires we had at once to take down, and I should add that, as regards the organist, the wires over the head of the choir seemed to produce a much greater effect than those directly between the choir and his seat; it appeared to him as if he had a bad cold and could not hear distinctly.

These wires appeared to prevent the voices rising and filling the cathedral. It seems very difficult to determine where to place the wires so as to produce a really good effect; but that they have a great effect far beyond what one would have supposed, *a priori*, is admitted by all who have taken an interest in the matter here. Several members of the congregation have remarked that they heard better in the cathedral now, without knowing the cause. We have used very thin wire; a stranger would not perceive it unless his attention were called to it. We hope to make some further experiments, especially with regard to the transepts of the cathedral.

The inexpensive nature of the experiment and the important result likely to be obtained make this a matter of great importance, independently of the great interest it possesses in a scientific point of view.

I may add that, when in Dublin, I attended divine service in St. Andrew's Church, and having officiated in the church at different times I am well aware of the difficulty of filling it in consequence of the echo, but the use of the wires appeared to have made a very great difference, as I heard most distinctly. It seemed to me, however, that a far greater

number were used than my experience in Cork would have led me to suppose were necessary.

I hope this subject will relieve the attention which it deserves. ROBERT S. GREGG."

I proceed now to lay down those views which I have deduced from these and other experiments coming under my notice.

In considering a building acoustically, you must look on it as embracing but two divisions—one where sound is manufactured, and one where it is consumed. The first division of the building is the place which is occupied by the choir or orchestra, the preacher or public speaker, the actor, the instrumental or vocal soloist, or by any instrument or instruments, human or divine, by which sound is manufactured and supplied for the delight, edification, or wearying of other divine instruments with the gift of hearing. The second division of the building is that which contains the hearers.

A stream of sound is to be projected from one of these divisions to the other, and it is very important that you should keep this stream of sound clearly in your mind, not as illustrated by the analogy of a simply flowing, gravitating stream, but as one sent forth with a certain initial velocity, such as may be illustrated by a stream from a syringe.

I am obliged to supply names for these two divisions, for brevity in frequent reference. I propose to call one the *vomitorium*, from which the sound is projected; the other the *auditorium*, where it is to be received. One half of a building may be occupied by a choir, or it may be but the spot where a solitary preacher stands, but this is still the vomitorium for my purposes, and all other space where hearers are placed is the auditorium.

From the vomitorium to the auditorium is, as I have said, to be projected—directed with what initial velocity can be given it towards the auditorium—a stream of sound: 1st, unmarred and unweakened in its inceptive force; 2nd, unimpeded in its course; and, 3rd, unmingled and uncontaminated, as it were, by streams of sound proceeding from or reflected from quarters other than the auditorium. This is the whole problem simply put. I use the word stream advisedly as a rough-and-ready, if rather inaccurate, expression for the transmission of sounds.

It is unnecessary for my practical purpose to enter with scientific accuracy into the theory of the transmission of sound-waves, by which term the phenomenon of sound-transit is much more truly expressed. It is simpler for us, I think, to consider the sound with which we have to deal as a volume that is desired to be projected from one place to another, expanding and distributing itself as it goes, and, bearing in mind that while a certain degree of initial strength can be given in one direction more than another by the speaker or singer turning his face in that direction, the tendency of our stream is to expand in all directions from its source, and with a tendency to rise rather than gravitate.

Two agencies are at work to affect the stream from its source to its reception, and these are Resonance and Reflection. Both, as servants, may be used to assist and re-inforce the manufactory of sound at its source; both, as masters, may mar and pollute the stream. Of building materials, wood is naturally resonant or re-inforcing, as is easily understood by the illustration of the body of a fiddle, which does not give the sound itself, but magnifies and re-inforces at its birth what the string produces ten thousand fold. So, if we can call to our aid the resonance of wood so applied as to add force to sound at its inception and not to affect it subsequently, we may call our building "right as a fiddle" in that respect. Materials which are not resonant, but reflecting—that is, calculated in surfaces to reflect or "echo" waves of sound—are stone, brick, plaster, metal, glass, &c.; and it is not to be forgotten that wood, with its resonant property, can in surface be a reflective agent too, if somewhat less so than harder or un-resonant materials.

First we have to consider what causes act

to weaken the force or mar the sound in the act of being transmitted. It will be simpler for us to suppose the building under consideration one of Cathedral character. St. Finbar's, Cork, will serve well to illustrate it; the source of sound a single singer in the centre of the chancel of the apse. The case is a typical one, and the principles involved apply to others. The singer endeavouring to project towards his auditory a volume of sound, the issuing sound expands in every direction above and all around, with a certain upward tendency more particularly. All that sound not travelling towards the auditorium is but waste. That which would here be lost, wandering away through the encircling arcade into the ambulatory roofs and up to the choir roof, might, if the singer had a reflecting surface, resonant or otherwise, immediately behind him, be reflected into that forward current towards the auditorium. This space behind and around is an element of weakness at the sound 'manufactory.' As a secondary source of injury to the stream of sound, varied reflections from previous streams of sound returning to the singer from the many reflecting surfaces of the ambulatory may confuse and 'blur' the immediately issuing sound; weakness in the issue of sound is, however, the distinguishing fact of the circumstances of the case under illustration. Place your singer as before, and give him a solid circular apse wall all around him as a reflecting agent, and you may introduce the element of confusion with a vengeance. From a curved surface sufficiently removed from the voice to make the reflection or echo leave it perceptibly subsequent to the initial sound, you may expect to find a return of sounds toward the singer converged and re-inforced by a principle similar to that which has created the whispering galleries of St. Paul's and Gloucester, which mingling with the sound issuing from his lips blurs and confuses.

I have had myself some experience of this in a church of which I was architect in Belfast, in which were presented some curious acoustic phenomena arising from peculiarities not of my contriving. One was the absence of a chancel arch, eliminated by local prejudices of an un-ecclesiastical committee; the other, an amount of glass surface sufficient nearly for a conservatory, and a minimum length proscribed for a nave under those, I must call them absurd hard-and-fast rules of the late Ecclesiastical Commissioners, and which have happily now gone, under the, so far, beneficent operation of the Irish Church Act, to the limbo of official stupidities and crazes, along with the stock 'moral' specification and other amenities once imposed on independent architects.

In this church—St. Andrew's, Belfast—there is a semicircular apse, and, as I have said, no chancel arch or projecting piers; and all sounds projected from a speaker within the apse were found to issue with confusingly re-inforced power from reflection. A speaker standing in the exact centre on the chancel of the apse was found—as the reflection from the encircling wall was uniform—to be heard with comparative distinctness, although not perfectly clearly; while, standing in any other position out of the centre of the apse he created considerable confusion. A further prejudice of the local committee—accustomed, I dare say, as some of them were, in the days of their youth, to a three-decker leviathan preaching box in the middle of "the house" in local parlance,—was to have the pulpit towards the centre outside the apse, and in front of it. What grand confusion this led to was interesting, as an acoustic phenomenon, if somewhat astounding to a preacher. Moved back to the position intended for it, with the east wall of an aisle as a reflecting surface immediately behind the preacher, the pulpit proved satisfactory enough.

Other acoustic interferences of secondary importance arose in this case from the objectionably large area of glass reflective surface, which, as I have mentioned, was insisted on by an absurd rule of the Ecclesi-



astical Commissioners. These latter disturbances of sound were, I believe, cases to be met by the application of wires, and in point of fact were so, whether quite successfully or on any intelligent arrangement I cannot, however, say.

To return to the problem illustrated by St. Finbar's. We have considered those agencies which affect the sound at its issue. It is unnecessary for us to dwell on those which directly intercept its transmission, as practically it does not much concern us. These are, for example, such things as the columns or piers within a building which directly intervene between the vomitorium and a part of the auditory. Against such features as these, acoustically considered, much, I think, stupid and unreasoning prejudice is found in some quarters. We pass on to those agencies which affect the current of sound in the course of transmission.

It may be assumed that the initial or direct stream of sound can, theoretically, never reach the auditorium unmingled with reflected waves from preceding currents. The reflected waves from the roof may earliest be considered as affecting the initial current. If the roof is low, and the distance to be traversed by the sound before it is reflected inconsiderable, the reflected sound will be so nearly instantaneous with the initial sound as to be practically identical, and cause no perceptible confusion; but as the roof becomes more distant the interval between the currents becomes more marked,—the sounds in course of transmission, directly, become affected, simply speaking, by the echoes of those which have preceded them; consequently, to a lofty roof we may look as one of the most important agencies in causing acoustic deficiency. The form and material of a roof are also aggravating agencies in confusion of sound. The first will affect the character of the reflected waves, and this detail of the subject, from the vast variety of forms of roofs which prevail, time would not permit me to dwell on; the second—material—is of considerable importance. When, in addition to the evil of a lofty roof reflecting sound, you have that roof formed of a resonant material such as wood, strengthening and reinforcing the sound that it reflects, I should consider that as an aggravating element of confusion. In Messrs. Lanyon and Lynn's fine church of St. Andrew, Dublin—the most acoustically unfortunate church I have ever observed—the cause of confusion and notice may be observed in a marked form.

The next and often the most serious element of confusion arises from those reflected waves of sound which have travelled beyond the auditorium, and are returned to it to mingle with the initial stream. These are in fact such echoes or reverberations as return from the unbroken surface of a western wall, an expanse or glass surface in it, or from aisle roofs such as those in St. Finbar's. Of this character is that "rumbling" effect sometimes produced by a great organ, apparently in the roofs of a cathedral or great church, and which some people think so grand, but which I feel certain no sensitive musician would wish to hear. In the mingling of the reflected waves of musical sounds with the initial stream, meant for our immediate enjoyment, discord more or less pronounced must prevail.

This brings us to the object we have in view—the application of a remedy against the evils of reflected sound. Hitherto we have known but of one device—namely, that of hanging curtains, as being less reflective, against the western wall of a church or other such surface that we suspected of causing reverberation. Now we have arrived at this remarkable fact, that a strand of wire in a state of tension will break and disperse the wave of sound that passed it. To us, unskilled in the deeper researches of musical and acoustic science, this natural and to us mysterious law seems almost incredible, but we must be constrained by the logic of hard facts.

The explanation given is this—I am indebted for it to an accomplished musical

friend—that the wire in tension—you will mark that it *must* be strained—is in a state of perpetual vibration which has this effect on waves of sound passing it of breaking their current and dispersing them. When this wire is attached to a resonant material such as wood, the vibration, otherwise silent, becomes a tonic one (as before illustrated by a fiddle), and the vibration is sensible to the ear. A familiar example of this is the melancholy mysterious music of the telegraph wires or an Æolian harp. The wooden telegraph posts supply the resonance to the wires. You may learn from this, that in applying wires as a remedy, they must be attached to non-resonant materials, such as stone.

Thoroughly understanding the tendency of this mysterious agency, it does not appear difficult to point out, in general terms where it should be applied. If you have reason to believe reverberation comes from the aisle roofs of such a church as St. Finbar's—place the wires, say, across the arches at their springing, where they will intercept the initial flow of sound towards the roofs, sufficiently high not to intercept any sound directed to the auditory in the aisles. Remember, all sound which has been the vehicle of an *idea* to an audience is but waste when it has passed it by, and returning to it is but mischievous and contaminating to the pure initial stream. If, then, the reverberating surfaces are found behind the audience, place the wires anywhere beyond it, the audience, where they will disperse the sound-wave after it has served its purpose. You must be careful not to make this mistake of placing such a potent interceptor of sound *between* the auditorium and the vomitorium, nor must you use your wires in such proximity to the source of sound as will limit its due expansion. From Dr. Gregg's experiments we observe this remarkable fact, that wires strained immediately over his choir, as it were, strangled the sound at its birth. We observe also that where they were placed in the nave, between the choir and the organist in the western gallery, while they served to allay the confusion, they caused the body of sound to reach the organist with a remarkably weakened force. Disposed so as to break the waves of sound uselessly travelling into transept and aisle roofs, and against the reflecting surface of western walls, the remedy would be effectual.

One word on the subject I have used in illustration, and I have done. St. Finbar's—able as its architect is, charming and admirable as it presents itself on paper to you—has, in execution, in its ugly archaicism of detail, its mere clumsiness and want of appreciation of *scale*, sins enough to answer for. If, however, you should be inclined, in admiration of Mr. Burges' masculine force—which, in the abstract, I share with you,—to imitate his work, do not, because a western organ gallery is the 'correct thing' in an 'Early French' church, make the west end the location of the organ. If an organ is desired there for processional effects, provide an additional one there; but do not torture the organist and distract the choir, and separate what should be one instantaneous harmony, by placing such a distance between them: fixing the organ in a position, which will be the wrong one for the congregation, until they begin to say their prayers consistently with their faces towards the west, or have their ears turned to the backs of their heads.

#### FLOATING SWIMMING BATHS.

THE first of a number of swimming baths, intended for the river Thames, was launched some days ago from the slipways of the Thames Ironworks and Shipbuilding Company, at Blackwall. In form it is a very large hull of iron, 170 feet long by 30 in breadth. It will be stationed on the river near Hungerford. The bath-house when completed will form a fresh-water bath, and will be open at all hours. A new structure is provided by Mr. Walker, the engineer, with filtering apparatus to ensure the purity of

the Thames water which will flow into the reservoirs. Arrangements are also made for warming the water in the cold season. There will be a depth of seven feet at one end and three at the other, and a inclination of 1 in 30. Two fountains will play in the interior. There will be suitable dressing-rooms and other accommodation. Could not something be done for the citizens of Dublin like this at or beyond the point of the North Wall?

#### LIFFEY PURIFICATION SCHEMES.

"He that prigs wot isn't his'n,  
When he's catch'd is sent to pris'n."

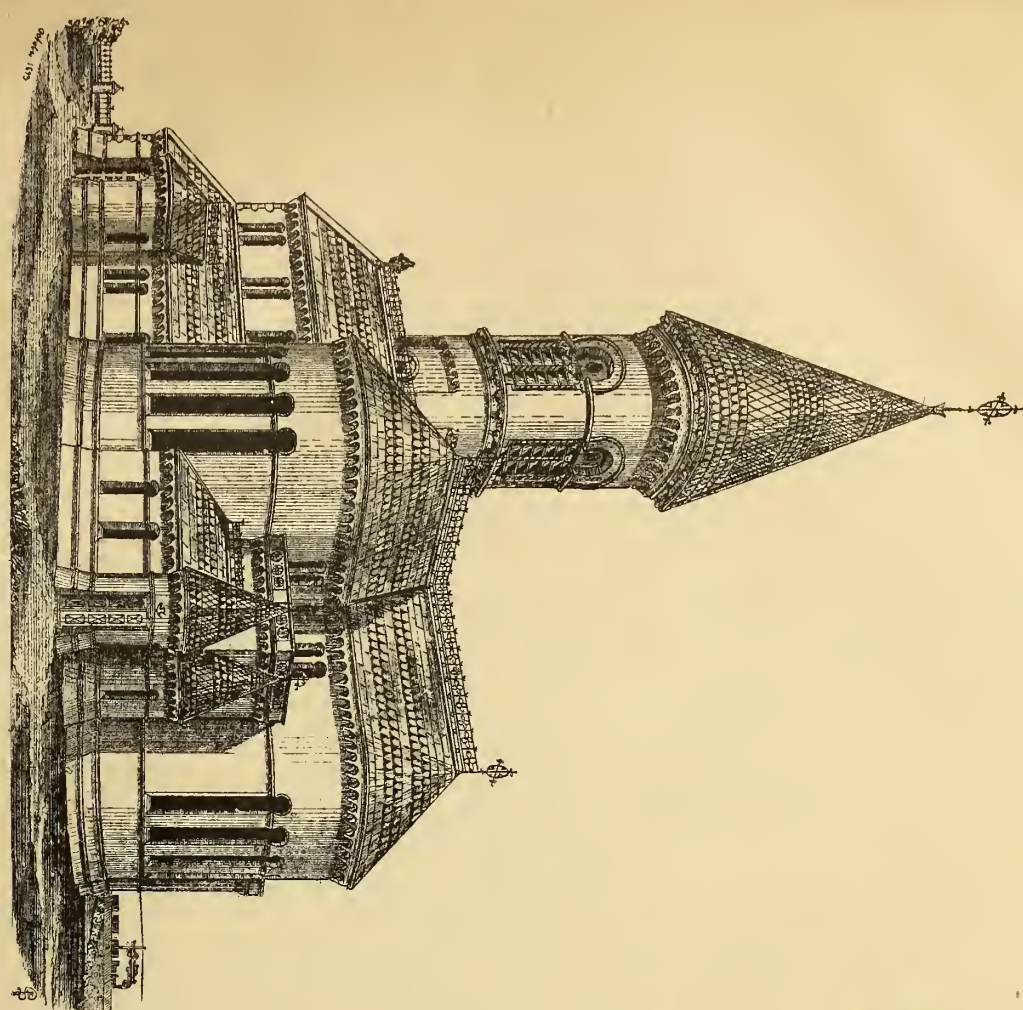
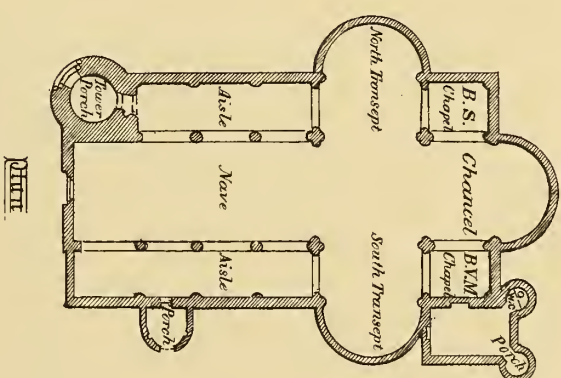
THE above jail-bird lines, though rough, are expressive, and suited to our present purpose. A contemporary, commenting on the novel (*sic*) scheme proposed by Mr. G. P. Warren, an enlightened member of our Town Council, for the purification of the Liffey, extols its merits, and recommends it for adoption. "He proposes," says our contemporary, "to form channels for the sewers by running dwarf walls parallel to the quay walls at each side of the river from King's Bridge to below Carlisle Bridge, to have tidal gates stretching across the river, two of them opening eastward into the side channels, and the third set fitting the intermediate space in the centre of the river, and opening westward. The object is, to have the central gates opened by the incoming tide, and closed by the receding tide, in such a way as to send the water off from the centre into the side channels, and so to have them flushed. The bed of the river would always be partially covered, with water, and the outfall of some of the sewers would be depressed and broadened, so that the drain would be carried under the water level of the foreshore channel. Provision is made in the plan for reducing the gates to mere skeletons in case of floods in the river, and for keeping the surface of the centre always covered with water."

So runs Mr. Warren's reputed novel scheme, which we shall prove to be no novelty at all, but a piece of unmistakeable plagiarism. It is not the first time we have caught members of the Dublin Corporation flaunting in borrowed plumes, and attempting to obtain credit by stealing other men's inventions and ideas. A recent instance occurred in relation to floating hospitals, long since recommended in this journal.

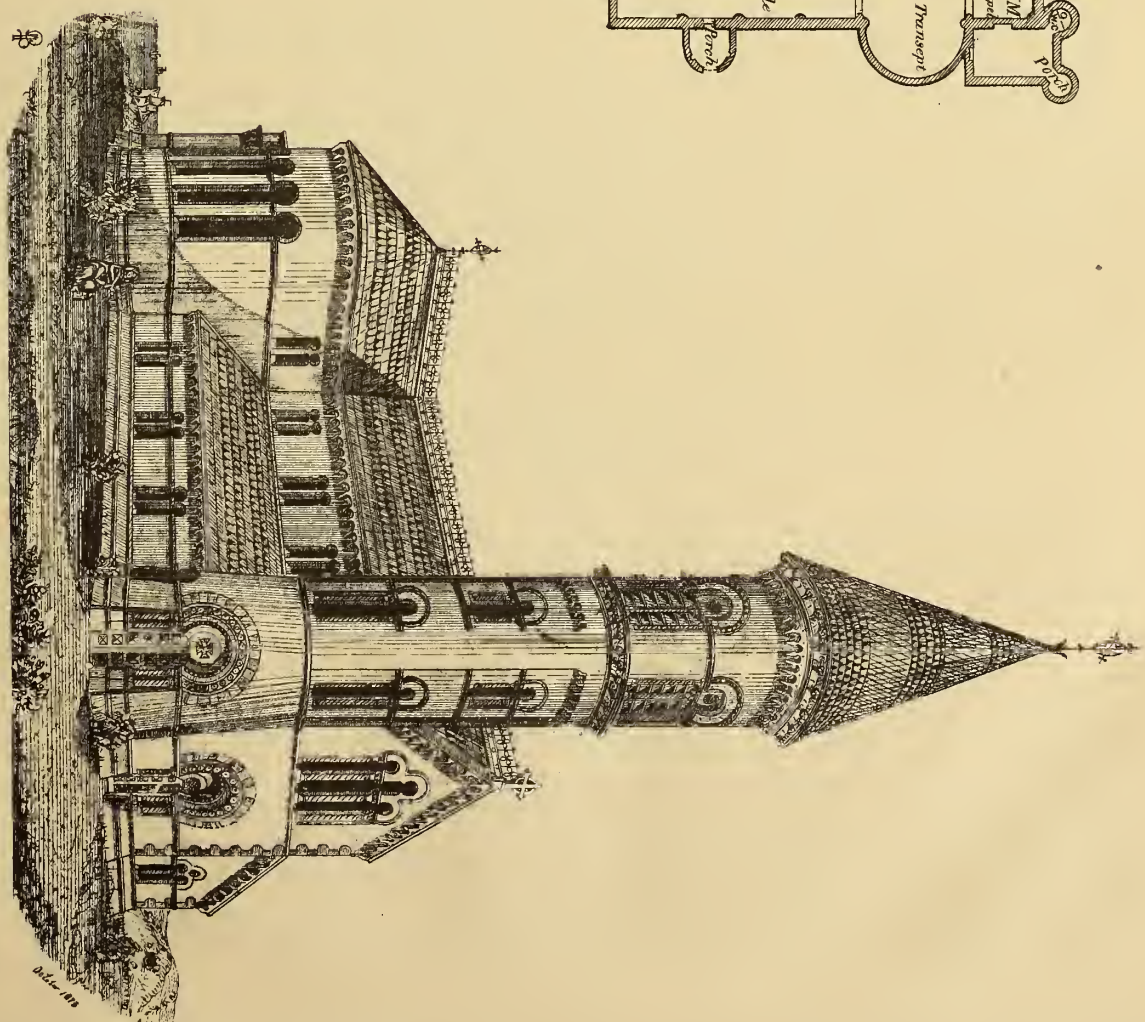
We have before us as we write a printed document headed "Liffey Improvement—Design for Self-Acting Sluices, by J. M. Corbet, C.E.," dating back four years ago, giving views and sections of a plan intended to mitigate the evils produced by the foul state of the Liffey, and improve its sanitary condition, pending the providing of a main drainage scheme, which was calculated to be finished many years before it was possible of execution. Mr. Corbet's plan, in his own words, proposed to erect self-acting sluices of wrought-iron framework, sheeted with timber, and working on horizontal axles, at Carlisle Bridge and Victoria Bridge, thus dividing the river into reaches of about 650 yards each. The sluices to open up the stream by the action of the incoming tide, and to be kept in a horizontal position by a simple self-acting appliance till low water, when they close of themselves. Each of the gates next the quay walls to have a permanent aperture, by which a current will be created to keep the bed of the river free from silting, and to allow the uninterrupted outflow of the sewage from the sewers. By setting the axles near the centre, there will be no obstruction to the traffic, as thus, when in a horizontal position by the incoming tide, the gates will be about two feet in height, leaving ample water for all the barges and boats plying above Carlisle Bridge.

Mr. Corbet summarised the advantages of his project thus—1st. It keeps the foreshore permanently covered. 2nd. It does not obstruct the ebb or flow of the tide, or the discharge of the sewage. 3rd. It does not interrupt the traffic or interfere with the fish.





SOUTH EAST VIEW.



NORTH WEST VIEW

DESIGN FOR BETTYSTOWN CHAPEL. CO. DUBLIN.



THE LIBRARY  
OF THE  
UNIVERSITY OF FLORIDA



4th. It is not expensive, the whole cost being estimated at about £2,500. We may add that a working model of Mr. Corbet's plan was exhibited, at the time of the proposal of his scheme, in the yard of the Leinster Chambers.

What has Mr. G. P. Warren, of Kilmainham, or our contemporary who lauds his novel (?) scheme, to say to the above? If justice were rigidly administered, Kilmainham would have proved a rather unsuitable spot for Mr. Warren's personal convenience, if the spirit of the old Brehon laws were acted upon, and perhaps justly, for

"He that prigs wot isn't his'n,  
When he's catch'd is sent to pris'n."

Pending the construction of intercepting sewers, or the carrying out of a complete system of main drainage, any economic and well-devised temporary scheme for the purification of the Liffey would be a benefit that would be gratefully received by the citizens of Dublin. We almost despair of seeing an efficient main drainage scheme carried out in the present generation, more particularly if it be attempted under the present constitution of the Corporation. A large number of the present members are jobbers and speculators, and jobbers they will continue till the end of their lives. It is a second nature to them to be so engaged. When they are not jobbing, they are scheming; and when not doing the latter, they are industriously employed in stealing the ideas and appropriating the projects and inventions of other men.

#### ARCHDALL'S MONASTICON HIBERNICUM.\*

THE reproduction of Archdall's work, so long out of print, has long been desiderated. Since the close of the last century until the present many MS. materials of Irish history have been discovered and elucidated, throwing much additional light on our ecclesiastical history and religious foundations, and rendering a new edition of Archdall's volume necessary. Without altering the text of the original work, we are now presented with the first of three volumes, edited with copious notes by the Right Rev. Patrick F. Moran, Lord Bishop of Ossory, with the assistance of other native antiquarians. The present volume treats of the counties of Antrim, Armagh, Carlow, Cavan, Clare, Cork, Derry, Donegal, Down, and Dublin; and accompanying the present instalment we have the following maps and illustrations:—Archdall's map of Ireland; the Cathedral Church of St. Colman, Cloyne, and Round Tower; Ptolemy's map of Erin; the Three Patron Saints of Ireland; a Benedictine Monk; a Benedictine Nun: view of the Ancient Episcopal Palace, Tallaght, in county Dublin; an Augustinian Hermit; a Cistercian Monk; view of the choir of St. Patrick's Cathedral, Dublin, and south-east view of the same.

It was, perhaps, to be expected that the present editor would differ from Archdall on some religious points, but these are points which are likely to be always debateable when touched upon by members of different religious persuasions. Apart from any religious prejudices or predilections, we have preferred to examine the volume, and we have no hesitation in stating that the extensive notes appended, as far as they have gone, have greatly enhanced the work, which, even in its original form, we have ever considered a most valuable one. That Archdall has erred in matters of history, has always been acknowledged by historians and antiquarians of his own church; but, labouring as he did under great difficulties as to means, yet it is surprising that he accomplished so much, and so little that is really censurable. Had Archdall met with the degree of encouragement which his labours and assiduity deserved, he would have left behind him a still nobler work. His work is, however, now well supplemented, and possibly before the

end of this century the volume will be further supplemented with valuable additional material by the labour of other painstaking antiquarians.

We have not time nor space in present issue to deal with some of the interesting notes of the reverend editor and colleagues, most of which are interesting as well as valuable, but we promise our readers this, that we will again return to a more lengthy notice of the work, and afford them an insight of how it has been executed and what constitutes its real value. Sufficient to say for the present that the mechanical get up of the volume is excellent, and is a credit to publisher, printer, and all others engaged.

#### CIVIC LYRICS.—No. LXII.

##### "ILLUSTRIOUS MEN."

I know some wise and prudent men,  
And more's the pity;  
Some use aloud their tongue, and then  
They shew their cunning with the pen,  
Within this city.

There are many other men I know,  
Like spire vanes, veering;  
No matter how the wind may blow,  
They raise the wind by which they go  
Through their careering.

Some are stout Tories, some are Whigs,  
Some are Home Rulers;  
Some rear cattle, others pigs;  
More sell whiskey, tea, and figs—  
Cute Fin Mac Coolers.

All serve their country,—so they say—  
And look for nothing;  
'Tis known they seldom go astray,  
And have the will, and know the way,  
To keep their footing.

These men I've known for many years—  
From five to thirty,—  
And, though with talk they've cracked my ears,  
With all their schemes the city wears  
Its aspect dirty.

Ah, these wise and prudent men  
Have long been spotted,  
And all their gift of the gab and pen  
Won't save them from a whipping, when  
The whip is knotted.

CIVIS.

#### THE CONVERSAZIONE OF THE CIVIL ENGINEERS.

THE daily press of London seemed to have been too much occupied with the festivities attendant on the late visit of the Czar, to bestow a few words descriptive of this year's gathering at the International Exhibition. Having been favoured with a kindly invitation, we attended, as we did the preceding year, and we were highly pleased with the general result. The guests received by the worthy President and his wife (Mr. and Mrs. Harrison) numbered some thousands, including members of the nobility, gentry, and the professional orders.

The picture galleries were thrown open in their entire extent, and the machinery court, with the various machines in motion performing various processes in connection with the industrial and useful arts. Ample refreshments at bars in different quarters of the building were provided, including wines, fruits, and all the usual delicacies of the season.

We took note of several inventions and processes that deeply interested us in our tour of inspection through the Machinery Annexe. Among these were several machines of growing importance to the future of building and the cognate branches. Lish's Patent Tile-Concrete System of Building; Wade and Cherry's Patent System of Interlocking Roofing Tiles; the "Special" Steam Pump of Tangye, Brothers, and Holman, which is adapted for all ordinary purposes; Milburn and Co.'s Patent Conoidal Stone Mills for grinding dry substances of various kinds, such as coprolites, Portland cement, phosphates, ores, fire-clay, gypsum, spices, drugs, rice, &c.; Armstrong's Patent Dovetailing

Machine, an American invention, manufactured by Robinson and Son, engineers, Rochdale—a really useful and admirable working and clean-cutting machine, that admirably performs its work. There were numerous other important machines in motion, such as rock-drilling, planing, mortising, tenoning, grooving, printing, book-binding, and weaving machines, which were worked and explained by the attendants to the unprofessional visitors, many of whom marvelled at their performances. Machines of a miscellaneous nature were many, some greatly improved since our last year's visit. A system of printing by patent logotypes was exhibited by Colonel Tomline, consisting, first, of words, syllables, or two or more letters cast in one piece; secondly, figures cast in various combinations; and, thirdly, words, syllables, and letters having the characters sunk into the foot of the type. The logotype system is not exactly novel, for it was tried nearly a century ago, when the *Times* newspaper was established. Colonel Tomline's method is, however, an improvement on the original method adopted by the founder of the *Times*, Mr. Walter, the grandfather or great grandfather of the present chief proprietor. Of some particular machines connected with the building interest we may speak hereafter. The *conversazione* was a brilliant gathering, and all honour to the association and success to its worthy and talented president.

#### THE ASSOCIATION OF MUNICIPAL AND SANITARY ENGINEERS AND SURVEYORS.

THIS association, which is growing rapidly, and promises to be most useful in many ways, held a general meeting in Birmingham on Thursday. Mr. Lewis Angell, C.E., the originator of the association, occupied the chair, as President. There was a large attendance of members from various parts of England. The report stated that the society was making most satisfactory progress. Three districts had already been established—viz., the Midland, the Lancashire and Cheshire, and the Yorkshire, and a fourth, for the home counties, was being formed. The President, in the course of his address, referred to the sewage difficulty in towns. He believed there had been too much as well as too little legislation on this question. If some of the official energy shown in the detection and prosecution of towns were directed to the discovery of the remedy, the Government would be rendering a real service to the country. It ought to be well known whether intermittent filtration or irrigation farms were successes, and where they could be applied. It would be better that an imperial exchequer should spend a few thousands in crucial experiments for the guidance of the nation than that town after town should be harassed by injunctions and penalties, in addition to the waste of thousands in unsatisfactory attempts to solve the vexed question.

The sewage difficulty is likely still to be a difficulty, so long as there is no united resolve to solve it by crucial experiments. We have certainly been always in favour of irrigation farms, and believe that they had proven successful when properly conducted.

An endeavour is now made to solve the problem by converting sewage into a new fuel and burning it up in steam and other furnaces. The patentee is Mr. Edward Lowe, of Birmingham, and experiments have been tried at the mills of Messrs. Danks and Co., in that town. The experiments have been pronounced to be a success, but we await further ones. If night soil can be economically treated with chemicals, rendered inodorous, and converted into good fuel, a problem will indeed be solved. It is said the fuel produced at Birmingham burned brightly, gave forth a good heat, and there was scarcely any waste or ash.

\* "Monasticon Hibernicum: or, History of the Abbeys, Priories, and other Religious Houses in Ireland," &c. By Mervyn Archdall, A.M. Dublin: W. B. Kelly, Grafton-street.



## THE MUNICIPAL AND PARISH RECORDS OF DUBLIN.

THE history of our city can never be really written without consulting both our civic and parish records. Under the superintendence of the Library Committee of the London Corporation a most valuable volume was published in 1868, entitled "Memoirs of London and London Life in the XIIIth, XIVth, and XVth Centuries." The volume is made up of a series of extracts—local, social and political—from the early archives of the city of London. Many of the entries and doings in MS. were in Latin, Norman French, and early English characters. The matter was well selected, translated, and edited by Henry Thomas Riley, M.A., and the volume is prefaced with a good introduction and copious notes. Cannot something be done for Dublin like this, but coming down to a later date? These remarks were suggested by a communication in a contemporary from the Rev. W. G. Carroll, Rector of St. Bride's. He writes:—

"My parish register goes back to 1633, to the time when St. Michael-le-Pole's Church (afterwards Dr. Jones's School, spoken of by Dr. Barrett, and now our Widows' alms-house), and St. Stephen's Church (now Mercer's Hospital) were still standing, and it contains entries from St. Michael's and St. Stephen's—one of which is quoted in Mason's 'History of St. Patrick's Cathedral.' Our Vestry Acts and Vestry Accounts commence with the restoration of Charles the Second, and they give the history of the building of the present church, of the alms-houses and schools, watch-houses, stocks, &c.—they give the succession of clergymen, churchwardens, organists, clerks, and schoolmasters—they mention the old Round Tower, the church on the mill pond, 'Tibb and Tom,' the Pool gate, Tokens, Brass Money, Governor Luttrell's order to number the Protestants, the searching of the church for arms in 1689 (these last two matters and Dr. Foy, the then incumbent, are noticed in King's 'State of the Protestants'), the old Quakers' Meeting House, parish perambulations, 'Crown's Quest,' white haltpence, the old city walls, consecration dimers, Sir James Ware's right of passage in Bride's-alley, &c. We have school accounts 100 years old, which give price-lists that are interesting now, and charity sermons by Dean Kirwan and others which brought surprising collections. We have lists of pew-holders nearly 200 years old; e.g., Sir William Petty, who built his family vault here in 1685; archbishops of Dublin, bishops of Meath, of Kilmore, and of Ossory; Lord Powerscourt, Sir Capel Molyneux, Sir William Donville, Dr. Howard, &c. We have Swifts and Grattans in abundance, Sir S. Bradstreet, Dr. Duigenan, F.T.C.D., so much admired by Mr. Froude, who lived in Chancery-lane—Napper Tandy, who was arrested in Chancery-lane, being then the churchwarden; Mr. Prendergast, also living in Chancery-lane, ancestor of the author of the 'Cromwellian Settlement'; Colonel Sir Hierome Sankey, Petty's accuser, elected churchwarden in 1641, &c. We have a list of 'recanters,' from 1740 to 1780, the form of abjuration, and the archbishop's order attached. We have a Preachers' Book from about the same time, which contains the names, and often the autographs, of many eminent bishops, deans, and fellows of college, e.g., Dr. Leland, the historian; Dr. Lloyd, late Provost; Dr. Elrington, late Bishop of Ferns; Dr. Walker (founder, I believe, of the sect which bears his name); A. Hely Hutchinson, who afterwards entered the army; Peter Roe, Dr. Gabriel Stokes, and many others. For the purpose of comparing them with our registers, I have transcribed our part of the 'Subsidy Roll' in 1643, and of the 'Hearth Money Roll' in 1666, and the sameness of the names is remarkable. It is worth noticing that in the Subsidy Roll as well as in the Visitation Rolls of the time our three parishes are mentioned separately, and that in the roll of 1666 as well as in our books we are mentioned as one parish, although the formal union of the three did not take place till 1683. Our title to this day on the Visitation Roll is 'St. Bridget's, with St. Michael of the Pool, united for ever.' Other parishes, I suppose, have the same sort of records, and is it not a pity to put away, unused, such priceless historical materials?"

We think a selection from the old parish records of Dublin would be a valuable addition to our already known local history, and such a volume might be published by an united effort on the part of all parishes having records. An editor to undertake the

task would not be difficult to find, and it would need but little organization to enlist the sympathies of the inhabitants of each parish to subscribe towards the cost of production. The old parishes of Dublin are not so many, but ever since their increase by partitions valuable entries have been made bearing upon stirring matters in Dublin in the sixteenth and seventeenth centuries. We trust that some movement will be set on foot, resulting in the publication of the valuable portions of our parish records.

## THE DIFFUSION OF SANITARY KNOWLEDGE.\*

A SELF-EVIDENT proposition is admitted to be difficult of proof. An axiom may be stated, but is supposed to be incapable of demonstration, and the attempt even to reason on the difficulty of substantiating logically that which commands instinctive assent leads at once into the region of metaphysics. I should venture on yet more subtle ground were I to hazard entering upon the inquiry why self-evident propositions or truisms stand pre-eminent among the things universally neglected in practice. Yet my subject, namely, "The Importance of a Special Organisation for the Diffusion of Sanitary Knowledge," places me in this difficulty and takes me into this region. For when I have stated it, shall I not have enunciated a self-evident proposition? Who is there that will dispute the value of knowledge, provided only it be real? Or who will deny the value of health? Who will question that the one bears upon the other? Health cannot be maintained without knowledge, whether that knowledge be instructive, intuitive, or acquired. And who is there to be found bold enough to affirm that our existing habits in matters relating to the maintenance of health are satisfactory? If there be such an one, I should select him as the strongest and most conclusive embodied evidence it were possible to procure, or to adduce, of the necessity which exists for the diffusion of knowledge leading to a better condition of mind. If, on the other hand, there be none such, my proposition is in great part admitted, and, in so far, my object attained. If the habits of a great proportion of our population be in many respects not conducive to, but subversive of, the due maintenance of health, who will gainsay the propriety of, if there exist not the absolute necessity for, a special organisation to spread sound knowledge on sanitary subjects; but an organisation armed with that authority which is derived from conviction brought to bear rather than with that comparatively unreal and unstable force which may indeed be procured by the instrumentality of legal enactments, but which is never willingly submitted to when enacted contrary to conviction, and which never carries, and never can carry, the same inherent power as stands inseparably connected with settled conviction founded upon the knowledge of the true; and this is, to my mind, the sound definition of science—science is true knowledge of the true. In accordance with these views, I seek, in bringing this subject under your consideration, to arouse the energy of action, so that it may be applied directly to the performance of this task, and this society be moved to form a distinct branch, which I hope will cover the land, and which shall base its action on somewhat of the following principles and outline of suggestion. First, on patient and continuous investigation of what is true in that class of subjects pertaining to health which is usually ranged under the term "Sanitary." Next, on clear and concise compilation of the evidence on which each step in such investigations shall rest, and which shall proceed to diffuse or spread such knowledge, but which shall leave entirely free and unfettered by any recommendation of legal enactments the adoption or the non-adoption of the results which may seem to flow from the establishment on such evidence of the premises in question. I shall presently seek to direct your attention at somewhat greater length to the grounds on which I press this advocacy of perfect liberty; but I introduce it thus early to your notice because, for my own part, I am as thoroughly satisfied of the policy as I am of the propriety, of limiting legal enactments to such negative injunctions as fetter liberty only where it degenerates into license, and of never attempting to command an individual or a community to tread in some particular positive path. Particular enactments, however much they may possibly be deemed right at the time, may all the while be wrong; but this is the least evil aspect of the question. The intrusion of legislative or go-

vernment direction beyond the function of maintaining order tends to unman a people, and is both a cause and symptom of decline. This, even if the legislation and direction be right in themselves; but the legislation of wrong is the violation of law, and treason against its majesty. Law forbids our injuring our neighbour, but law is powerless in the direction of direct benefit. We cannot by any means whatever do any positive good to our neighbour by means of a legal enactment. We can and we ought to abstain from doing our neighbour harm, but every needless, and, much more, every injuring enactment is organised wrong to our neighbour, and wrong in the worst form. The only enactment I should desire would run in ordinary phraseology enough; it would be an act to amend by repealing other acts. . . . I believe that with very rare, if with any, exceptions our scientific institutions fall short of exercising the influence and carrying the weight they might and should, if they followed more invariably the rule of bringing to a practical conclusion and pronouncing a definite judgment on the questions brought before them, and formed sub-committees charged to see approved conclusions carried into practice by science, that is to say, by sufficiently diffusing sound knowledge on the particular subject. And this is what I propose that we should do. . . . In spite of an act with some Latin words hard to peasant understanding, which has substituted "urban" and "rural" for "town" and "country," and which has done very little else, there is no department of the Government charged with decreeing and determining what is conducive to health; but if there were we should be wholly free from any special allegiance to it. Our freedom, however, in this matter is not merely complete. We are actually invited by the circumstances of the case to take up the ground which has been left clear, I fear, not from any intelligent understanding, that it is wholly beside and beyond the province of administrative government to decree and determine what shall be the laws of nature which are to govern bodily health, and that it is a proper function of administrative government to cause such laws, which are a part of nature, or in other words inherent in the creation, to be discovered and recognised. I say it is less, I fear, to any clear apprehension of this fact, that we are indebted to our freedom in the matter than it is to the hopeless perplexity of minds which have travelled in the groove of evolving legal enactments out of their inner consciousness, and which, when they look to that inner consciousness for sanitary light, find nothing and evolve that. I think I shall sufficiently establish this statement by a single illustration. Legal enactments at the present moment compel the introduction of an enormous bulk of putrescible matter into the fluid we drink and are supposed to wash in. That fluid is thereby itself made putrid. It consists of gases which, in contact with putridity, change their qualities and evaporate in new and pernicious formations. The bulk of the fluid remains more or less putrid. These legal enactments again step in and forbid the fluid in that condition to remain in the river bed. The victims of this double compulsion meekly ask what they are to do, but the inner consciousness has exhausted its resources, and gives neither voice nor answer. It remains an utter blank. The victims find themselves the mere sport of a power which commands them under irresistible penalty to bring about a state of things which the same power declares makes water unfit for river beds. First, the adoption of a particular mode of attaining a certain end is made imperative, and next, justifiably enough except for this previous circumstance, it is declared that poisonous water, or water in a condition calculated to do injury to health, shall not be poured into river beds; but when it is asked of administrative government, which is answerable for this state of things, "What are we to do?" there is given first the reply, "Repurify," but to the farther question of "How?" the response is like those echoes of Killarney which add to the sounds they reverberate, and the answer is, "Anyhow! we neither know nor care." To suppose, however, that legal enactments which result from what the present Prime Minister is peculiarly apt to call "the wisdom of Parliament," or "Parliament in its wisdom," stop here, would be to suppose an error. Simply to forbid poisonous water, or water that is in a state injurious to a sound state of health, being poured into river beds were a desirable, if not an absolutely necessary rule. It would be a rule in consonance with law in its right sense, that is to say, in harmony with right, morality, and reason. Legal enactments have found their way out of such a dilemma as this which would have involved them in a state of things foreign to their customs. The mode of escape was simple and indescribably efficacious. They did not *proscribe* any measured degree of

\* By Major-General Synge, R.E. Read before the Society of Arts, on the 13th ult.



corruption, but they prescribed a standard of purity. It answered every purpose. It sounded magnificently grand and lofty. It was not evil that was to be forbidden, positive good was to be ordered, and purity in water was to be established by Act of Parliament. The first question, however, was, "What is purity in water, and what is its standard?" To determine the order of the universe seems to exercise an irresistible fascination over the framers of legal fetters. Here an exceptionally fortunate opportunity for the indulgence of this morbid fancy was presented. It offered first an illimitable field for every sort of wrangling. Chemists, lawyers, legislators, each and all could have their say, and all help to the one end of avoiding practical simplicity through having raised a thoroughly non-pertinent issue. The success has been complete. The introduction of a so-called standard of purity instead of the prohibition of defilement has left the determination of that standard undetermined, and it has left the great water arteries of the country in the evil state in which it found them. The "standard of purity," so declared the "Rivers Purification Committee of Scotland," composed of dukes, marquesses, and other peers, and baronets, and of merchants, manufacturers, and proprietors of Scotland, who associated themselves together to end the pollution of their waters—"The standard of purity would destroy the manufactures of the country." On the other hand, the manufacturing town of Bradford, in Yorkshire, has been under injunction to prevent its pouring its pollution into a stream much fouler than the Bradford flood. To enjoin and to forbid, to puzzle and perplex, these are the results of legal enactments, and such appear to be their revelry and their delight. So far as the limits of time allow me with regard to other points I must bring before you, I dwell at some length and as impressively as I can upon this point, because I believe it to be the very root, not only of the many social evils under which we suffer, but I believe the fondness for legal enactments and the blind credulity that puts its trust in them, are threatening us with some danger of that hopeless and despicable condition in which the sense of manhood has died out. It is a lazy, cruel, and immoral thing to thrust upon others our views or our interests through the intricacies of a tyranny which is not at all the less real for being cloaked by hypocrisy and tempered by folly, and although the embodiment of this evil is in the enactments themselves, these only come into being through the operation of that feeling which seeks more and more to place all life under government rule and supervision, instead of jealously guarding against every encroachment on individual liberty, and every form of usurpation over moral law. The charms of compulsion when applied to others seem daily more and more to deaden, till they threaten to obliterate the sense of morality and the power of distinction between right and wrong, to extinguish the very love and sense of liberty, and that jealousy of unjustifiable interference, both the effect and cause of the former manliness of character, and the foundation alike of the past greatness and the present prosperity of the country. "Government without a Parliament," said the great Lord Burleigh of the reign of Elizabeth, "is an object of terror; Government with a Parliament is an object of desire;" but he added, "England can never be undone but by a Parliament." Government by Parliament he described as an infallible mode of compassing the ruin of the country. Even that prescient statesman, however, has left no record that proves he foresaw that we should delight in being poisoned by Act of Parliament.

A man of modern times, not his inferior it may be in wisdom, has said—"If we adopt the recent English idea of factious contention as the meaning of politics, no man can be a politician and a Christian; but if politics be the knowledge of our duties as citizens, there can be no Christian that is not a politician."

(To be continued.)

### RALPH MACKLIN'S SCHOOL.

SIR,—The following is a copy of the article in *St. Ann's Parochial Magazine* for March, alluded to in my former letter:—

#### "UNITED SCHOOLS OF RALPH MACKLIN AND ST. ANN'S."

"It will be seen from the report of the meeting of the Select Vestry in February that they have made satisfactory arrangements for the improvement of the parochial schools. They had long felt that a first-class commercial school was needed in this parish and district, and that the children, particularly the boys, could not be expected successfully to compete with pupils taught in Government and private schools, unless a higher education were put within their reach. But this could not be done

unless the governors were able to offer more liberal salaries, so as to secure first-class teachers, and a sufficient number of them; and also to provide, without stint, all the appliances, educational requisites, and encouragements which a good school should have.

"The parishioners and subscribers will be glad to learn that there is now a fair prospect of the attainment of this object. There is in existence a school, endowed several years ago by a bequest of Mr. Ralph Macklin, which enjoys a small annual income, though one not of itself adequate to the necessities of a really good educational establishment. The school was placed by Mr. Macklin's will under the *ex-officio* government of the curates of St. Ann's, St. Andrew's, and St. Werburgh's, and about fifteen years since was moved from Stephen-street to Upper Camden-street. The present governors felt that it would be more in accordance with the intentions of the testator that the school should be carried on in the district for whose benefit he seems to have chiefly intended it, and under the more immediate supervision of the governors designated in the will; and, therefore, they gladly consented to the proposal of the Governors of St. Ann's Parochial Schools to connect it with the schools of this parish, and constitute jointly such an educational institution as would be a gain and profit, not to this parish only, but to the surrounding neighbourhood. On the supposition that the subscriptions are continued, the united resources will be doubled, and the opportunities of usefulness will be increased in proportion. The institution will be re-opened after Easter as 'The Schools of Ralph Macklin's Trust, in connection with St. Ann's Parochial Schools.'

"These schools will be carried on under the same church system as before, and will be opened to all children of the neighbourhood. The weekly fee will be as heretofore, only one penny for each child.

"It is intended to give the pupils such a thoroughly good commercial education as will qualify them for successful competition in several branches of the Civil Service, and it is hoped to open extra classes of instruction for those who choose to pay small extra fees—in short, to offer the same educational advantages of every kind as are now afforded in the Model Schools of Marlborough-street. These will be combined with constant pastoral supervision, and careful instruction in Holy Scriptures and the doctrines and formularies of the Church. The Governors of Ralph Macklin's School have united in the experiment in the belief and expectation that the parishioners of St. Ann's will contribute one moiety of the expense, and so make it successful. On the fulfilment of this hope the stability and continuance of the experiment will depend.

"*Select Vestry—Monthly Meeting, Monday, February 2, 1874.*—Present—The Very Rev. the Vicar in the chair; Revs. C. D. Russell and T. Peacey; Messrs. Booth, Churchhill, Cooper, Cronyn, Goodwin, LaTouche, Magnire, Mowat, Smyth, and Sexton (sec). Minutes of previous meeting read and signed. The School Visitors reported the school in good order. A communication was read from the Governors of Ralph Macklin's School, agreeing to remove their school to Molesworth-street and connect it with St. Ann's Parochial School, the Select Vestry paying a stipulated yearly sum to the Governors of Ralph Macklin's School for the efficient conducting of the Parochial School; and also to keep the school-house in proper repair, and pay all expenses of painting and cleaning. It was proposed by Mr. Maguire, and seconded by Mr. Goodwin, 'That the proposition of the Governors of the Ralph Macklin School be accepted.' The resolution was agreed to unanimously, occupation to be given at Easter next."

It should be observed that all the advantages specified by the contemplated removal of the schools from Camden-street to Molesworth-street are one-sided—viz., to St. Ann's Parochial Schools. The question may be asked *Cui bono?* as respects those of Ralph Macklin's, which, we affirm, is the material one. What benefit would they derive? The only one that we have heard advanced is, that it would be more convenient for the clerical governors, and this is the plea put forward in the article in the magazine. A clergyman who had been one of the clerical governors told me the fact was that the curates of St. Ann's found the distance to Camden-street too far for them to walk! It is just half a mile from St. Ann's clergy-house to Ralph Macklin's School in Camden-street. But the principal governors mentioned in the testator's will—viz., the Governors and Governesses of the Magdalen Asylum in Leeson-street, are not mentioned nor alluded to in the magazine. Ralph Macklin's will states they were to be assisted by the curates of St. Werburgh's, St. Andrew's, and St. Ann's.

The Endowed School Commissioners (1858), in

their report (p. 267) state—"We are of opinion, 1st, that the intentions of the founders of all private schools should be adhered to."

Let us see what were Ralph Macklin's intentions, as expressed in his will. His words are—"That an 'institution' be founded [that word is defined in Walker's Dictionary thus—Act of establishing; establishment; settlement; positive law; education] to be called Ralph Macklin's Sunday and Thursday Poor School." How could "a first-class commercial school, the pupils of which are expected successfully to compete with those taught in Government and private schools," be a school for the poor?

Hear what the Rev. MacNevin Bradshaw, one of the trustees, and formerly one of the "clerical governors," has published in the *Daily Express* and the *Evening Mail*:—

"I wish to state thus publicly that I am, and always have been entirely opposed to these changes, and I wish to bear my decided testimony as to these schools (Ralph Macklin's) being most usefully placed where they have now for a long time been, at the top of Camden-street. To my mind they have been very fairly efficient schools, and if not so much as they might be, there is no lack of funds to hinder them being made still more efficient. Also, it seems to me a most palpable abuse of their endowments to spend them in supporting a school in St. Ann's Parish, placed in a position almost touching the Church Education Training Schools. There are several other reasons, but the two I give are sufficient—1st, the school is well as it is, and wanted where it is; 2ndly, if changed at all, the last place to bring it is to the very next door to a similar school.—(Signed) M. BRADSHAW. St. Catherine's Vestry, 20th March, 1874."

The scheme put forward by the Court of Chancery gives permission to the governors to apply to that court from time to time as they shall deem expedient touching the said institution, and the said funds thereof. Permit me to ask the governors, through your columns, has any such application been made respecting the proposed removal of the institution from Lower Camden-street to St. Anne's Parochial School in Molesworth-street? or has counsel's opinion been taken in the matter? With this I conclude my second letter on the subject, and am, your obedient servant,

GEORGE S. DYER, Captain R.N.

34 Upper Gloucester-street, Dublin,  
May 23rd, 1874.

P.S.—Since the foregoing was written, the Rev. T. Peacey called at the school, and announced to the teachers that their pupils had been very successful the past year in drawing, twenty-seven of them having been awarded prizes from South Kensington School of Art. G. S. D.

### SCIENTIFIC EDUCATION.

In the concluding portion of the fourth report of the Royal Commissioners on Scientific Education, we find the following as to

#### PUBLIC LECTURES IN CONNECTION WITH MUSEUMS.

On this point they have received a good deal of evidence, but of a very varying nature. Several of the witnesses who approve of the idea that some scheme of lectures should be adopted, attach widely different meanings to the word. Some consider that purely elementary courses of lectures should be provided, others hold that the lectures should be of an advanced class; others again would like to see both popular and advanced courses given. On the other hand some witnesses considered that lecturing would be quite incompatible with the ordinary duties of the museum officials. As regards the British Museum, the Commissioners are distinctly of opinion that it would not be advisable to institute systematic courses of lectures, while at the same time they look favourably on the occasional demonstrations that have been made by some of the officials in the museum galleries. The reasons for their opinion are various. They do not consider that such different occupations as lecturing and curatorial work could well be carried on by the same person, nor do they consider it advisable that a special educational staff should be added to the present staff of the museum. They remark that special collections would be required for purposes of illustration, and as these would have to be kept separate from the large and more valuable collections, there would be no advantage in keeping such selected specimens at the British Museum. The Commission look rather to the educational advantage to be gained by careful arrangement, cataloguing, and labelling, rather than to the more direct instruction of lectures.



In the case of provincial museums these objections are not considered to hold with the same force, and the Commissioners are of opinion that it would be of great advantage for the diffusion of scientific knowledge that arrangements should be made for giving courses of scientific lectures in such provincial museums of natural history as have typical collections of specimens, and are provided with convenient lecture-rooms. These lectures should be explanatory of the contents of the museum, and accessible to all parties on the payment of a small fee.

In the same way these objections "do not apply to those museums, whether metropolitan or provincial, which contain collections of physical, mechanical, and chemical apparatus, of geometrical models, or of models illustrating the progress of machinery and in manufacturing processes.

In such museums the curator's duties are simple; he is not engaged in original research or study, and he may well employ his time in explaining well-known principles to the public.

On the whole, the conclusions arrived at lead to the following recommendations:—

"That courses of lectures be given in connection with the collection of physical and mechanical instruments, the establishment of which we have proposed, the object of these lectures being to illustrate the progress of scientific and mechanical discovery and invention.

That the establishment of lectures on science, accessible to all classes on payment of a small fee, should be promoted by the Government in the great centres of population.

That, in the first instance, with the view of carrying out the preceding recommendation, the system of instruction of this kind, which has already been established by the Government in the metropolis, should be developed by the institution of courses of lectures on the principal branches of experimental and natural science.

That the proposed lectures be of two kinds. First, lectures of an elementary character on the general principles and most important facts of science. Secondly, lectures specially intended for the working classes on the application of science to the arts and industries of the country."

The concluding paragraphs of the report stated that throughout the Commissioners have been guided by two convictions:—

"The first, that the diffusion among the people of a general knowledge of science is in itself an object of great importance, and that, in particular, an acquaintance with the manner in which abstract science is brought to bear upon industrial occupations is of the greatest moment to the working classes of this country, not merely as tending directly to increase the skill of the artisan in his handicraft, but as the best means of awakening his intelligence, by forcing him to reflect upon the general laws which are exemplified by the processes with which he is familiar in his daily life.

The second, that no real advancement of knowledge and none of the higher benefits from science as educational discipline are to be hoped for from merely general and occasional scientific instruction, whether it be derived from books or from lectures, but that such advancement and benefits will result only from systematic and sustained study."

While, therefore, they deprecate the notion that no scientific institution ought to be supported by the State unless it contributes directly in some way or other to the instruction or entertainment of the general public, they advocate the fullest extension of popular instruction in science, whether by lectures in connection with public museums suited for such purposes, or otherwise.

### MECHANICS' INSTITUTES.

At the annual meeting of the Yorkshire Union of Mechanics' Institutes, held in the Town Hall of Ripon on Wednesday, under the auspices of the Ripon Mechanics' Institute, about 250 delegates were received in the Town Hall by the Mayor and Corporation. Another meeting was held the same evening, at which the Marquis of Ripon presided. He spoke of the good that was done by mechanics' institutes during many years towards the spread of education. He recommended good lectures and good teachers, as usefulness depended upon the amount of efficiency in which a thing was done, and not upon the amount of things attempted. He disputed the truth of the common saying that a little knowledge was a dangerous thing, unless it was taken by the owner to be a great deal. In his opinion the work of these institutes was becoming more and more

earnest. Lord Lytton, who spoke, hoped that mechanics' institutes would not lose sight of the danger of supplying the luxury of knowledge where more elementary instruction was required. Sir Samuel Baker stated that education might be carried, even in England, too far—that was if they taught Greek and Latin and not the arts and sciences requisite for the use of their country. He had seen a good deal of other nations, but had met with no men equal to British mechanics. Earl de Grey also briefly addressed the meeting upon the same subject.

In Ireland, we are of opinion that mechanics' institutes were more popular and better supported some years since than they are at present. In Dublin certainly the mechanics, as a class, have not rallied round the body that bears their name. Its classes and reading-rooms and library have been more often availed of by persons who were not operatives, but clerks and mercantile assistants. More than once it seemed as if our Dublin institute was about to collapse for the lack of support, an occurrence which we would have sincerely regretted, although the institute never yet reached that standard of utility which we would have liked to have seen. Owing to the opening of schools of art in connection with South Kensington, and to the establishment of working men's clubs and other kindred organisations, mechanics' institutes of late years have been somewhat thinned in many districts.

There is no union of institutes in this country, as far as we are aware of, for mutual counsel or aid. Each appear to be acting apart from each, instead of being bound together by some common link by which their unity would bring strength.

The idea of originating mechanics' institutes occurred to Dr. Birkbeck, a great friend of the working classes, as far back as 1800, but it was not until twenty years later they were actually established. In 1823 Dr. Birkbeck presided at a meeting which had for its object the founding of the "London Mechanics' Institution." The same year he was elected its president, which he continued to be until his death in 1841. Sufficient time has, therefore, elapsed to show the value and results of mechanics' institutes, and valuable they can be made if wisely conducted.

Like every other institution, they need good directors or committees, for good organisation produces good management, and without the latter, a mechanics' as well as any other institution, must suffer.

### THE DUBLIN SANITARY ASSOCIATION AND THE PUBLIC HEALTH COMMITTEE.

At a meeting of the above association the following resolution was adopted, and ordered to be forwarded to the Public Health Committee:—

"That in the opinion of this committee the practice of charging any of the citizens of Dublin for the conveyance of patients to hospital is injudicious, and calculated to encourage the system of employing cabs for the purpose—so productive a source of the spread of contagion."

The following resolution, we believe, is intended as a reply from the Public Health Committee to the preceding:—

"That the resolution of the Sanitary Association now read is an unnecessary and uncalled-for expression of opinion, in so far as regards the action of this committee, and is only calculated to mislead the public as to the arrangements and proceedings of the nuisance authority of the Borough of Dublin, no such practice as that referred to in the resolution being adopted by the authority."

What are the arrangements and proceedings of the nuisance authority of Dublin, and at what date was the new order issued? Were no charges ever made for the conveyance of patients to hospitals? When were ordinary cabs entirely superseded, and how many new ambulances have been built? We would like these questions to be answered.

### SANITARY AND OTHER NOTES.

THE Corporation have again been airing the question of our main drainage, and have resolved to do what they have been doing—nothing good. We are to have another revision of the already thrice-revised estimates. So there is another job for the borough engineer and Mr. Bazalgette.

Some sanitary prosecutions have taken place in the matter of the non-removal of nuisances and the adulteration of milk. Mr. Woodroffe, of Island Bridge, was fined 20s. for disobeying an order to remove a nuisance alleged to exist at some of his houses. There were several cases of a similar nature against other persons, and fines were inflicted. The following keepers of dairies were summoned for selling milk adulterated with water, viz.:—William Storey, 11 Barrack-street, 33 per cent. of water; £3 fine and £2 costs. Margaret Storey, 6 Wood-lane, 33 per cent. of water; £3 fine and £2 costs. John Fitzpatrick, 25 Lower Oriel-street, 80 per cent. of water; £10 fine and £5 costs. James O'Brien, 78 Lower Mecklenburgh-street, 50 per cent. of water; £6 fine and £3 costs. Mr. O'Donel intimated that he had a scale drawn up for dealing with these cases, and the rule was to inflict £1 fine for 10 per cent. adulteration, and so on up to £20, which was the highest penalty, and that was inflicted in cases where the adulteration reached 100 per cent. He had had reason to inflict the full fine in some instances. Mr. Ennis, solicitor, and Mr. O'Connor prosecuted on behalf of the Public Health Committee of the Corporation. Mr. White, solicitor, appeared for the defendants.

At a meeting of the Corporation on Friday last, the amendments to the Public Health (Ireland) Bill proposed by the Public Health Committee, were considered. Mr. C. Dennehy said that, from a hurried glance at the measure, he had no hesitation in characterizing it as the most insidious piece of legislation that had ever been promoted since the day that the Union was carried. It would emasculate them, and make the Corporation the servants, the serfs, and the slaves of the Local Government Board. That might be according to the wishes of some, but it was most distasteful to the vast majority of members. The Government has been insidiously attempting, for a considerable time, to carry out that principle—to govern Ireland by a bureau, and now under the pretext of improving the sanitary condition of Ireland, they were going to make the Municipal Council of the City of Dublin the mere slaves of a Local Government Board. Why, who was the president of the Board? The Chief Secretary, who might be a man having the interests of Ireland at heart, like the Marquis of Hartington, or who might be a man like Lord St. Germain, knowing nothing of the country—unable to state whether Castlebar was in England or Ireland. If ever this bill passed—if they were to be at the beck and call of a board such as that, or any board, members should, in a body, leave the Council Chamber!!

DROGHEDA.—We have been informed that fever of a virulent kind is unpleasantly rife in Drogheda in the poorer quarter of the town. The local journal a few days since also reported the same. We hope that steps have already been taken to prevent its spread, and that the local authorities are remedying the defective drains and sewers of the town to which we recently directed attention.

NEWRY.—Our Newry contemporary, in commenting upon the recent resignation of the Town Inspector, and the need of an efficient new officer, also draws attention to the sanitary condition of the town, which may be pronounced not good, nor yet very bad. Cholera or fever would, no doubt, find some suitable visiting places in the town where it would be likely to revel, at least for a while. Some dwellings situated near Talbot-street and Sandystreet could not, it is believed, escape from the dire evil if it came that way. Newry ought to have a good sewerage, for it is a town very favourably situated as regards outfall. If the local authorities continue to be remiss in their duties, a rap over the knuckles from the Local Government Board might wake them up some morning. They had better take care that a requisition on the part of some of the ratepayers may not soon bring them a missive from the central authority.

KINGSTOWN.—At a late meeting of the Commissioners, it appeared that the Kingstown Extension Bill has been settled amicably, the Commissioners having, in effect, become part promoters of the measure by allowing £250 out of the rates for the London costs and other charges. As no general meeting of ratepayers was held to sanction this outlay, a question as to its strict regularity is raised.

RATHDRUM.—At a meeting of the guardians it was resolved to instruct the master of the work-



house to employ the county analyst, should his services be required, for milk and other analyses. Captain Robinson, Inspector, attended with regard to the house-drainage question. He expressed himself in favour of internal utilization. A committee reported on the matter, and, after a conversation, it was referred for action to a future day.

### THE MOORE ANNIVERSARY.

A CONCERT was held on Thursday evening last, in the Ancient Concert Rooms, to celebrate the anniversary of Moore's birth. We cannot say whether the remembrances associated with the memory of the author of *Lalla Rookh*, or Professor Glover's well-known celebrity as a caterer for public amusement, attracted the crowded, delighted, and highly-fashionable audience that graced the above-mentioned place of entertainment on the occasion named.

The "Fantasia on Irish Airs," by Professor Glover, was simply exquisite; the "loud timbrel" was duly "sounded" in accordance with a wish expressed by the "chorus" to that effect; while Mrs. Scott Fennell's rendering of the "Minstrel Boy" called forth the approbation of the audience in the shape of an *encore*.

The vocal and instrumental performances were a success in the entirety, and we are only sorry that we cannot say as much for the recitations of the "Fire Worshippers" and "Those Evening Bells" (with tea-tray accompaniment), which were given in a very indifferent manner by an exact prototype of Sam Slick. OLYMPUS.

### WOOD GOODS SALES.

WE have to direct attention to our advertisement columns for announcements of sales to take place this week—on Wednesday next at Messrs. Richard Martin and Co.'s, Sir John's-quay, and on Friday next at the North Carriers' Dock Liverpool.

### THE PRICE AND QUALITY OF GAS.

ON the first of next month the alteration in the illuminating power of the gas, diminishing its light, and the seeming decrease in price of 2d. per 1,000, but in reality an increase of about 1s. on private consumers, will come into operation. What the additional cost of lighting the public lamps will be to the ratepayers we cannot at present ascertain, but we can understand that it might be altogether set down at 1s. 8d. per 1,000 if the matter be not sturdily looked after. Under existing circumstances, the Citizens' Committee opposing the gas bills, not being prepared to despise the threat of leaving Dublin and its surroundings in darkness, by having another gas company to take on the lighting of the gas district, and having to encounter the unexpected and inconsistent coalition of the Corporation and Gas Company, had to agree to the terms proposed.

It may be fairly asked what was it that influenced the Corporation in deciding on giving their assistance to enable the Gas Company to make this very large addition to their gas rental in opposition to the well-known wishes of the ratepayers and gas consumers, and also in contradiction to a resolution passed by a majority of 17 to 4 at a meeting of the Corporation on the 29th of August, 1873, in which their law agent was directed to lodge with the Board of Trade the objections of the Corporation to the application of the Gas Company for power to reduce the illuminating properties of gas and to continue charging 5s. 6d. per 1,000 for same? What was the motive which influenced the Corporation, in May, 1874, to falsify their resolution of August, 1873? Did the Gas Company undertake to pay the parliamentary and other expenses incurred by the Corporation in pushing on their abortive gas bills, and which expenses the individual members of the Corporation would have had to pay out of their own private pockets?

It is to be hoped that the increased amount of their gas bills will enable the ratepayers to see the necessity of rejecting, at the next and future municipal elections, such members of the Corporation as gave their assistance in increasing the revenues of the Gas Company at the expense of the ratepayers.

### HOME AND FOREIGN NOTES.

**SURVEYOR FOR COUNTY LONDONDERRY.**—Arthur C. Adair, Esq., C.E., has been appointed to the Surveyorship of County Londonderry, in place of R. Williamson, Esq., C.E. deceased.

The Town Commissioners of Wexford are about seeking for a loan of £10,000 for the purpose of building a town hall.

At a meeting of the Aberdeen Town Council, held on Monday, the Finance Committee, which had under consideration the appointment of a public analyst for the city, reported as follows:—"That there is no urgent necessity, nor any widespread desire, for such an appointment."

**CAVAN PROTESTANT HALL.**—Considerable progress has been made in the movement for the erection of a Protestant hall in the town of Cavan. Several designs have been laid before the committee, the consideration of which will come before them on the 9th inst. A sum of £700 has been lodged in bank towards the undertaking.

**LIVERPOOL CORPORATE EXPENDITURE.**—The accounts of the Liverpool Corporation for the year 1873, issued on Saturday, show that the expenditure on the water account amounted to £181,136, and the receipts to £165,922. The expenditure under the various sanitary acts amounted to £167,665, and the receipts to £148,262, which, with the balances at the bank, show a balance to credit of upwards of £27,000.

**THE SEWAGE OF TOWNS.**—The contests between filtration and irrigation have engendered irritation in big and little corporations. Gravitation from stagnation is not everywhere attained: innovations for preservation of populations must be gained; precipitation means purification of rivers now defiled. Administrations are seeking information to stay the hydro-hydra decimation in this our land. Let precipitation wed irrigation, the consummation will be *aqua pura* and rich cultivation; then generations' gratifications will revert to sewage pioneers throughout the nations.—*Builder*.

**GIFT TO GLASGOW.**—The late Mr. Stephen Mitchell, tobacco manufacturer in the city, has bequeathed to the Corporation of Glasgow the munificent sum of £70,000, to be applied in founding a public library, which shall be furnished with all books not of an immoral tendency. The donor stipulates that, in the event of the Glasgow corporation being unable to accept this trust, it shall be offered to the Edinburgh authorities, and failing the acceptance of it, the money shall be divided for bursary purposes between the universities of the two cities.

**PUBLIC SLAUGHTER-HOUSES.**—We see that the providing of public slaughter-houses is being agitated in several places in the sister kingdom. At the Local Board of Accrington, Mr. B. Hargreaves, in accordance with notice, moved that the Board purchase a plot of land near Pleck House, containing 2,650 square yards, from Colonel Hargreaves, for the erection of slaughter-houses for the town. He explained that the land had been offered at 3d. per square yard at 25 years' purchase. He thought that the nuisance arising from the want of slaughter-houses was increasing year by year, and it was desirable that they should have public slaughter-houses. The erection of slaughter-houses would secure better meat for Accrington. He had been told that they had bad meat in Skipton before they erected slaughter-houses, but now that they had got slaughter-houses the meat was of a better quality.

**CO-OPERATION.**—One of a series of Co-operative Conferences has been held at Darwen in Lancashire. For the better and more efficient working of the co-operative movement in England and Scotland, the Central Board has been divided into sections, viz., the London, the North-Western (or Lancashire, Yorkshire, and district), the Glasgow, the Newcastle, and the Midland sections. The co-operative stores in the various districts have representatives on the Board, and conferences are held at certain intervals, where papers are read and discussions take place upon them. The papers treat upon subjects of local and general interest, affecting the co-operative movement. There were between two and three hundred delegates present, representing about seventy societies.

### TO CORRESPONDENTS.

**GOTHIC ARCHITECTURE.**—"The Principles of Gothic Ecclesiastical Architecture," by Matthew Holbeche Bloxam, may be consulted with safety on many points by our correspondent.

Parker's "Glossary of Architectural Terms" will be found a very useful supplement and reference.

**A RATEPAYER.**—The statements in the address of the Association are substantially correct and undeniable.

**INCURIOUS.**—There are ruins of churches at Killester and at Artane, and ancient graveyards attached, containing tombstones to the memory of some noted citizens. Within these last fifteen or twenty years much defacement has, however, taken place.

**IRON FOUNDRY.**—At the close of the last century an iron-founding establishment existed at Ballybough Bridge. We believe it was on that spot where the Vitriol Works are now and for many years have been carried on. In Wilson's Dublin Directory for 1786 appears the name of "Francis William Warren, merchant and Iron Founder, Ballybough b."

### NOTICE.

*It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.*

*Correspondents should send their names and addresses, not necessarily for publication.*

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*We shall be glad to receive from any of our readers notes of works in contemplation or in progress.*

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THE McKEAN ROCK DRILL.—Although, perhaps, less prominence has been given to the McKean drill than to some others in the various articles and letters which have from time to time appeared in the *Mining Journal*, the introduction of the machine has been steadily going on, and the results obtained with it have been in every case satisfactory. The machine is in general use, amongst other places, at the St. Gothard Tunnel, and St. John del Rey Mines, and from the acknowledged practical ability of the gentlemen who have control of the working operations at these places, the mere adoption of a machine by them is a very strong evidence in its favour. With regard to the St. John del Rey Mines, in particular, it may fairly be said that the managing director—Mr. John Hockin—has for years past displayed the utmost discrimination in the selection of the best machinery and materials obtainable in the market; hence, perhaps, the success which has attended his efforts to reinstate his company in its former prosperous position. Mr. Hockin was amongst the first to appreciate the value of dynamite as a substitute for blasting-powder in mines, and the economy he has effected by its use has been enormous; the result of using the McKean drill is equally satisfactory. The reason for his choice will readily be understood when the claims put forward for the McKean drill are considered. As compared with all the drills at present in the market, its advantages over them are that it is the simplest in construction, and contains the fewest parts; that no duplicate parts whatever require to be furnished with the machine, that it is more durable on account of its superior mechanical construction, that it is the most powerful, and runs at greater speed than any other, without liability to derangement or breakage, and that it possesses greater facility of manipulation in its adaptation to various kinds of work. The work done with the machine certainly goes far to establish these claims, and to remove any doubt that may exist. Messrs. McKean & Co. announce that they are quite prepared to submit to any competitive tests to determine the facts. This is only repeating the challenge made more than 12 months since in the *Mining Journal*, and as Messrs. McKean & Co. expressed their willingness to agree to any reasonable conditions, it is to be regretted that a competition promising to prove so extremely valuable to miners should never have taken place. The renewal of the offer at this time, when increasing interest seems to be taken in the matter, is particularly opportune, and its non-acceptance by rival manufacturers could only be regarded as a tacit admission on their part of the superiority of the McKean Drill.—*Mining Journal*, Nov. 22, 1873.

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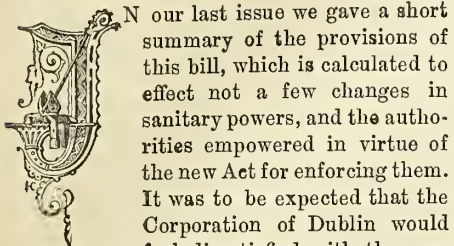
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# The Irish Builder.

VOL. XVI.—No. 348.

## The Irish Public Health Bill.



Our last issue we gave a short summary of the provisions of this bill, which is calculated to effect not a few changes in sanitary powers, and the authorities empowered in virtue of the new Act for enforcing them. It was to be expected that the Corporation of Dublin would feel dissatisfied with the new machinery, inasmuch as it, in their opinion, seriously interferes with their supposed rights and privileges under still-existing Sanitary Acts. The Public Health Committee of the Municipal Body have proposed several amendments, and others also will be proposed before the bill leaves committee. The amendments proposed by the Public Health Committee are in general not entitled to public approval, except from one point of view. If the Municipal Body, through their Public Health Committee, had heretofore honestly performed their duties in regard to the public health, there would have been a widespread regret felt at their powers being interfered with, and their dignity lessened.

We have on all occasions been outspoken on the shortcomings of the Corporation of this city, yet, in meting out deserved censure for abuses and neglect, we entertain a kindly and conservative feeling for municipal institutions, and would like to preserve them to the country. The early growth of municipal power was the growth of civilisation and liberty—liberty for the people as against all undue aggressions of the State. We would fain preserve our municipal institutions, and perpetuate them as local parliaments, but not as mere political arenas for displays of party and sectarian strife.

Corporations are quite capable of exercising even larger powers than those they are at present invested with, provided that proper safeguards existed by which they could be held amenable. Corporations still are proper bodies to entrust with sanitary powers, if the officers of the sanitary department were placed on a different footing, and a certain amount of independence was preserved for the medical, engineering, and inspecting staff required. A properly-embodied sanitary organisation has never yet existed, and hence both corporate bodies who have been sanitary authorities have engendered abuses.

We have often had to point out gross evils in this city, the source of which was the Council itself or members thereof. Where the members were the evil-doers, the officers being their servants, the servants imbibed the neglect of their masters, and the whole machinery became useless for enforcing respect for the law. A separate sanitary organisation or sanitary authority seemed to be the only way of meeting the difficulty, but every new department of the State meant a greater addition to the taxation of the country. The utilisation of existing institutions appeared to be the more economic and feasible way of mapping out the country for sanitary administration. We are not

satisfied that Sir Michael Hicks Beach's bill will solve the problem, particularly in a rural direction. The urban appointments, too, in the matter of sanitary inspection and supervision, are defective.

To commence with this new measure, the title of the Act is to be known as "The Public Health (Ireland) Bill," but the Corporation propose that "The Sanitary Act of 1866," and the several Acts and portions of Acts incorporated therewith or amending the same, and "The Sanitary Act of 1868," and "The Sanitary Loan Act, 1869," shall be incorporated with the new Act, and the several powers of, and duties imposed upon, the bodies therein mentioned as "Nuisance Authorities," "Sewer Authorities," and "Local Boards," shall be transferred to the "Urban Sanitary Authorities," and to the "Burial Sanitary Authorities," as specified in sections 3 and 4 of the Act. Of course if the 4th section of the Sanitary Act of 1866 be repealed, the powers and duties of the Sewer Authority under the Nuisance Removal and Sanitary Acts will pass from out of the hands of the Public Health Committee of the Corporation—powers and duties that have seldom or ever been efficiently performed heretofore at any period by the Corporate body.

The Corporation also object to the powers vested in three members of the Poor Law Board, who shall form a quorum, while under the Municipal Corporations Act it required one-third of the entire number of its members. The Corporation also think that, if the provision enabling a Sewer Authority to delegate its powers and duties under the Sanitary Acts to be a committee *must* be repealed, an enactment should be framed reducing the quorum required by the Municipal Corporations Act, as aforesaid, to three whenever the act to be done by the Council is one within the province of the Sanitary Acts.

Certainly a great many more abuses would have characterised the career of the Dublin Town Council if the quorum had been smaller, and many a scheme could have been carried under the colourable pretext of a Sanitary one, if the power here sought was conceded. A Corporation differs much from a Poor Law Board or a Board of Guardians. "Why," exclaims the Corporation "change the law with respect to the Sanitary Committee?" "The law as it at present is has been found to work well and efficiently, and all the acts of such a committee are subject to the control of, and to the subsequent confirmation of, the Town Council." We must confess that our experience of the Corporation in sanitary matters altogether disproves the above-quoted observations.

The Municipal Council think their remarks under this head also apply equally to all the urban sanitary authorities specified in section 3 of the new Bill. We cannot, in the space of one article, analyse the amendments proposed by the Corporation, and examine the many clauses and sections of the Bill. We agree in principle to some of the amendments and objections urged by the Municipal Body.

In section 10, relating to the appointment of dispensary medical officers as sanitary officers, we believe a mistake has been made. Dispensary medical officers cannot act in the capacity or perform the duties assigned to them. The duty marked out for them is out of their province altogether, and devolves upon

inspectors of nuisances of a more qualified kind than are generally doing duty under the old acts. Sanitary officers should not be wholly independent of the sanitary authority, but a degree of control should be exercised over them. In the matter of their dismissal for neglect of duty, of course the Local Government Board should be the final court of appeal. If the local sanitary authorities were invested with full powers to discharge without any resource left for the aggrieved, much injustice would, perhaps, be perpetrated.

Section 10 of the Act, if it passes untouched, will make a great inroad upon the privileges of the Dublin Corporation. They feel very sore in respect to it. At present, with the permission of the Commissioners of Police, a certain number of police sergeants act as inspectors of nuisances; but if the new bill should do away completely with this class of sanitary inspectors, very few indeed but those specially interested will regret. Let it be known that several of these police sergeants who have acted as sanitary inspectors are owners of tenement houses in different parts of this city, and we all know the general state of most tenement dwellings. Are all the houses owned by police sergeants in proper sanitary condition? It would appear that they are, as we never heard of a sanitary police inspector reporting a nuisance on the premises of which a member of the force is the landlord. We will not probe this part of the subject deeper, but we believe it would conduce to the public health if police sergeants, under the present Acts as well as the forthcoming one, ceased to act as inspectors of nuisances.

The new Bill, it appears, proposes to confine powers under the Diseases Prevention Act to the board of guardians for the entire poor law union. Previously, powers under this Act have been entrusted, by the 68th and subsequent sections of the Sanitary Act of 1866, to the several nuisance authorities in their respective districts, and poor law dispensary medical officers were required to assist the nuisance authorities in carrying the provisions of the Act into execution.

In the opinion of the Corporation, whenever the Diseases Prevention Act is called into force under the provisions of the new bill, a sanitary authority will be found acting within a sanitary authority, and both having the control of the dispensary medical officers. Such a system would indeed be objectionable, and might be found very difficult to carry out. On this head we consider the objection urged is entitled to a fair hearing, so that such a clashing of duties should be rendered impossible of occurrence.

As the new Bill may possibly undergo many modifications before we can address our readers again, we shall not enter into details further respecting the new clauses as to penalties and expenses proposed to be introduced by the Corporation. The Dublin Town Council are fully alive to the money question and to the disposal of the fines recoverable when acting as a sanitary authority. In conclusion for the present, we will only take note of the auditing of accounts as provided for by the new bill. It says—"The accounts of every sanitary authority shall be made up in such form and to such day or days in every year as may be appointed by the Local Government Board. The accounts of every rural sanitary authority shall be audited in every respect in the same manner



as their accounts are audited in their capacity of guardians." The Corporation urges an amendment in respect to this, and says—"It would be highly inconvenient" to have their sanitary accounts made up to a different date than that to which borough accounts have hitherto been balanced—viz., 31st August.

We desired to have entered more fully into a discussion of the new Bill, but space forbids us to extend our remarks further to-day.

### THE NEWRY TOWN COMMISSIONERS AND THE IRISH BUILDER.

NEWRY is a lively spot just now. A storm in a teapot would fitly illustrate the local froth that is agitating the town. One journal ventured on a little mild censure of the Commissioners, but grew alarmed in a day or two, and straightway retracted or glossed over the tendency of its remarks. A second journal, in want of food for thought, imitated its local contemporary, but "pitched into it" at the same time. Both journals were, however, cunning enough to know the advantages of praising the Commissioners, though they blackguarded one another. The reward came for both sooner than was expected, although not in the shape of a good displayed local board advertisement. To get the thanks of the Commissioners is a something; but why on earth was not a formal vote proposed and seconded to the resident and non-resident "dogs of war" who defend the town from outsiders, while battering themselves to pieces within?

We clip the following paragraph from the report of the proceedings of the Town Commissioners:—

"Mr. O'Hagan, J.P., said the thanks of the Commissioners were due to the editors of the two local papers for the spirited manner in which they had refuted the calumny sought to be heaped upon the Board by the *Irish Builder* in reference to the sanitary state of the town. With regard, however, to the subject which had originated this sanitary question—the existing nuisance in Sandys-street—he begged to move that the Town Clerk take the necessary legal steps to have it abated.

Mr. Maginnis seconded the motion, which was adopted."

How beautiful, how consistent! A Sandys-street nuisance was alluded to by us, it was then partly denied, and now the necessary steps are taken to have it abated, to shew that the Commissioners were not remiss in their duties.

Why was not the nuisance to which attention was directed long since removed, the drainage of the town properly provided for, and the performance of the contract work efficiently supervised? Because some of the Commissioners were remiss in their duties, and the remainder took it for granted that those who had the most to say knew the most about what was going on, and that everything progressed rightly.

In the Quarterly Return of the Registrar-General we find the following report as to Newry (No. 2 District):—"Several cases of typhus fever have occurred; all these were in houses unfit for human habitation, badly ventilated, and kept in a filthy condition." A morning contemporary puts the question—"Has Newry a sleeping corporation and a day-dreaming inspector, or have its local magnates an interest in causing these fever-dens to be tenanted?"

As to heaping calumny upon the Board, as

Mr. O'Hagan spells it, it would only be a loss of time and space to reply to the charge, remembering what has already been reported of the proceedings of the Board in the local papers.

It being our intention to pay a quiet visit to Newry, and submit certain statements to a practical test, and give the inhabitants and ratepayers of this frontier town the benefit of our visit in these pages, we will not now extend our remarks.

In conclusion, we would advise Mr. O'Hagan, at the next meeting of the Commissioners, to move that two tin clasps and leather medals be awarded to the two editors who so spiritedly belaboured one another while defending the Commissioners against the rude assaults of the *IRISH BUILDER*.

### FEEDING AT THE PUBLIC EXPENSE!!

At a recent meeting of the Manchester Town Council, a member objected to an item which appeared in the accounts passed by the Parks and Cemetery Committee of £27 4s., being the cost of an entertainment given by the committee to themselves. This item included £11 7s. 6d. for luncheon and £13 14s. 11d. for wine. The chairman stated that this annual expense should be incurred so long as he was in office. He would not think of asking fifteen or sixteen gentlemen to leave their business and devote a day to the service of the public, and after their work was done send them home in a state of starvation.

### BOOKS RECEIVED.

*Journal of the Royal Historical and Archaeological Association of Ireland.* January, 1874.

THE part of this journal now before us is mainly occupied with a continuation of "Loca Patriciana," by the Rev. John Francis Shearman, and an exceedingly interesting paper by Mr. W. F. Wakeman on "The Antiquities of Devenish." The latter paper is accompanied by carefully-executed drawings, with measurements.

*The Gentleman's Magazine* is quite up to the mark this month. "Olympia" is continued. It is followed by "An Emigration Sketch," showing how the "greenhorns" are taken in and done for by the sharks on the banks of the Mersey. In the poetical department the only piece presented is by Robert Buchanan, entitled "The Last Poet: a Vision." "Men and Manner in Parliament" is continued. The first part of "A Rambling Story," by Mary Cowden Clarke, supplies light reading for the lovers thereof.

### INSPECTION AND REFECTION ON THE BOYNE.

ON Tuesday last a committee of the Commissioners proceeded on their annual inspection of the river. The journey seaward (we quote from the local *Conservative*) was made in boats. Some improvements necessary in the channel were pointed out by Captain Brannigan, D.S.P. Co. After having completed their inspection, the committee retired to a secluded spot and partook of refreshments, which had been liberally provided by the Mayor. Some of the good things having been disposed of, Mr. Connolly proposed the health of the Mayor in a good-humoured speech. It was a pleasure to him to propose his worship's health, the more so that his hospitality was partaken of on the banks of the historic and romantic Boyne—where, on its banks, were built by the Kings of Tara, the first ships that ever left old Ireland to open commerce with France and all the nations of the earth

—that river too, where St. Patrick first landed to teach their forefathers Christianity. Let anybody read Sir William Wilde's account of the Boyne, and he must admire it. The scenery of its banks surpassed Killarney itself, and could not be surpassed by any in the world! Mr. Connolly concluded his passionate address by calling on all present to fill their bumpers and drink his worship's health—three times three (applause)—wishing him a welcome back to his brother Commissioners from the Royal Mansion in London, and hoping that he may have long life and prosperity. The Mayor's health having been duly honoured (and drunk), his worship returned thanks. The committee then returned home on cars, in remarkably good spirits, after their arduous duties of inspecting the river, &c.

### FLOOD DRAINAGE AND NAVIGATION OF LOUGH ERNE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—As promoter during last seven years of Mr. Lynam's plans, lately approved after long inquiries by the Head Inspector (now Assistant Commissioner) of the Board of Public Works, S. U. Roberts, Esq., C.E., I earnestly hope that the Dublin Press will support the proposed meeting next month at Portadown of the representatives of the 11 inland navigation interests between Belfast and Limerick, with a view to their united management under one board from end to end, under terms of a lease renewable every seven years.

It has been already favourably received by the northern board. The Town Commissioners of Enniskillen have appointed three merchants, viz., Mr. Whitley, Mr. G. Darregh, and Mr. J. Jordan; and Mr. John Hancock, of Lurgan, so well acquainted with these matters near Belfast, has promised to help this purpose in every way in his power.

The present waste of public time and money by piecemeal attention to these works—one year a committee of Parliament about the River Shannon, next year about Lough Neagh, &c.—must be both obvious and painful to every man of common sense who is acquainted with Ireland. Most of these canals now not only yield no profit, but are an annual loss to their owners, or their barony cess-payers, or the Government; and they will continue to be useless till united, like the late Mr. Brassey's amalgamated canals in England, which pay 10 per cent., and as the Lords' committee on canal traffic has recommended, from end to end.

Portadown has been chosen as the place of meeting, because the centre of the three canals at work, viz., from Lough Neagh to Belfast, to Newry, and to Canal Island. The Ulster Canal, made to join Lough Neagh and Lough Erne, remains useless because not fully put in order, and because its locks are smaller than the locks of these three canals. The Ballinamore Canal, made to join Lough Erne and the River Shannon, never has been fit for traffic, because never finished; and the Government has not yet fulfilled its written promises in 1871 and 1872 to appoint an inquiry into its state, because the mismanagement of the then Board of Works, its own agents, would be thereby disclosed, by whom this canal was made, and passed in 1860, as if finished, into the hands of county trustees.

Mistakes will happen under all governments, but it is strange that when they have been pointed out and cannot be—dare not be—denied; and still more, when inquiry has been promised, yet in this country, united with England under one Parliament, both inquiry and redress are put off from year to year.

It would require a waggon to carry all the blue books and reports about these canals, yet they still remain quite useless, still in the hands of government agents, and still without a sign of any earnest and comprehensive purpose to put them in profitable commercial order.

The Lord Justice of Appeal, a lawyer not less eminent for his ability than for his independent character, lately wrote "that there is no public opinion in Ireland;" and, therefore, sent his views on a great Irish question to a member in London, and not in Dublin.

I hope, however, that in this case the Dublin Press will show that a just Irish cause will always find fair and independent support in the capital of Ireland; and that its opinion has just weight and influence, both with the Government of this country, bound to promote its welfare, and also with the owners of more than 300 miles of canals, which have cost far more than two millions sterling, and which only require comprehensive commercial attention to become most useful to Ireland.—Your obedient,

J. G. V. PORTER.

Belleisle, June 8, 1874.



## THE HEALTH OF DUBLIN.

THE Registrar-General's Return for the week ending June 6th proves to be a demonstration the unsanitary state of Dublin, and the neglect of our civic rulers. Twenty-six deaths were registered occurring from zymotic diseases, including 4 from fever (2 typhus and 2 typhoid or enteric), 16 from scarlet fever, and 1 each from measles, diphtheria and quinsy. Ten children's deaths are ascribed to convulsions, but whether arising from teething, or parental neglect or abuse, is not stated. Two deaths are put down to apoplexy, and 1 to paralysis. Bronchitis caused 12 deaths, inflammation of the lungs 3, and unspecified lung disease 3. There were 9 cases of heart disease, 3 of liver disease, and 1 each from inflammation of the liver, stone in the bladder, and kidney disease unspecified. Twenty deaths took place from phthisis or pulmonary consumption, 4 each by mesenteric disease, and water on the brain. Thirty-three of the persons whose deaths were registered were under five years of age, and 37 of these were aged 60 or upwards. Of this number, one was a retired soldier wounded at the battle of Waterloo, and stated to be 103 years old. Thirty of the deaths registered in the Dublin Registration District (which includes the suburban districts of Rathmines, Donnybrook, Blackrock, and Kiugstown) occurred in hospitals and other public institutions, and of this number 16 took place in the North Dublin Union Workhouse. The deaths represent an annual mortality of 23 in every 1,000 of the population of the census of 1871. Considering how favourably this city is situated in respect to the sea and mountain breezes, the above is anything but a clean bill of health for Dublin.

## TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville*.

I ONCE remember hearing of a gentleman whose sagacity led him to securely lock a desk that possessed no back. Now, the persons who are answerable for the safe-keeping of Killester Churchyard are the authors of a somewhat similar moustrosity, in having erected a wall some eight feet in height round the above-named receptacle for the dear departed—to prevent stragglers violating the sacred sod, I presume,—and left the gate invitingly open. Is this Hibernian contradiction of an apparent intention to be looked on as a beautiful specimen of the inconsistent, or as a friendly invitation to explore the fetid charnel-house which the wall effectually conceals? Taking the latter as the correct solution of the problem, I a few evenings ago took a walk through the churchyard, which I found in the most disgusting state. Children's coffins, from eighteen inches to two feet six inches in length, lay about in all directions, and now and again hidden away in the shade of the rank bunches of wild celery and hemlock with which the place abounds. I came across the remains of the frail temple of an immortal spirit, the perishable garments of God's angels, defiled and trampled under foot.

The latest date on any headstone was 1837, and if we accept this as the last interment which took place with the cognizance of the authorities, how must we account for the multitude of tiny coffins, with almost new finishings, which were literally kicking about in all directions? The persons who place those coffins in Killester must have a dry humour of their own. What is their motive in doing so? is the first question which suggests itself. Do they imagine that a coffin loosely covered with earth constitutes Christian burial? Or is it in order to avoid the searching investigation that would inevitably ensue on the body of a juvenile fished out of a ditch? Perhaps so, but if the parties responsible did their duty they would interfere, if not from a sanitary point of

view, at least on behalf of justice and common decency.

I left Killester Churchyard with a feeling of the deepest disgust, and as I closed the gate I asked myself "Was our civilization a failure?" and the question appeared to be answered by myriads of diminutive skeletons that danced around me, singing—

"Rattle our poor bodies over the stones,  
We're all little paupers that nobody owns."

We have had a lot of talk about cremation lately; suppose they try that sort of thing out at Killester.

Cremation, by the way, seems to be quite the order of the day. Public meetings have been held in Berlin, Breslau, in Silesia, and Nuremberg, where the proposition to grill relatives and friends is being actively canvassed. Certainly, all persons that are determined to be "done" must be careful to die in good favour with the Church, for how easy would it be for her cowed and barefooted brethren to draw from the stove and ashes a spiritual manifestation of the whereabouts of the soul of the departed.

A bazaar was held in the Rotundo the other evening, into which I dropped, intending to wander at my own sweet will. At the door, a party that had a roulette table was requesting the public to back their own opinions. I worked my elbows, and having agonized my way to the table, with reminiscences of Baden fresh in my mind, staked a lordly tester's worth of copper—lost, and sought solace in profanity. The vice of gambling, however, is not the only temptation held forth to soft-hearted bachelors. No, it is not; or else why does the fair-haired damsel with the winning pick-your-pocket sort of air, plague the life out of you respecting the purchase of a potichomanie jar, decorated with an elaborate pattern, the simplest element of which is the alternate representation of a blue rose and mandarin in convulsions? Is the supercilious youth who requests you to "Take a ticket for Mrs. Murphy's cake," which is naturally a potato confection, looked upon by the anxious proprietor of the "stall" which he represents as an attraction for the charitably inclined? I ask myself why do people go to bazaars at all? Is it for the purpose of having the dark future revealed to them by the ruddy maiden who looks on the terms "loving looks" and "squinting" as synonymous? Is it for the purpose of purchasing portemonnaies, apparently constructed for the reception of fourpenny bits, or is their presence due to the tea-kettle holders lined with moire antique, white satin, and other appropriate materials? Or else, the smoking caps (in which I, at least, should as soon think of appearing as in a phylabeg) which, innocent of the noxious weed, lie wrapped up in silver paper on the stalls? Will we blame an unconsidered weakness for the Berlin wool slippers which could be made up at any time for seven and six? or is it for the purpose of enjoying the delectable strains produced by the mass of tweedlers, toolsters, twinklers, twangers, bangers, catgut-scrappers, and sheepskin thumpers that occupy the platform? Is the public mind elevated by the perusal of the numerous texts which are set forth on glorious red bannerets in all the beauties of emblazonry? Or is public speculation aroused as to whether these home truths might not be better fitted to the young ladies who skirmish about than to their luckless victims? "Charity covereth a multitude of sins." Well, perhaps so; but, allowing that charity is a very voluminous mantle, it would still have a nice job to cover all the falsehoods and other trifling *et cetera* in the sinning line which are committed on its behalf by its fair exponents at fancy fairs.

I had been some two hours trying to fathom the mysteries marked thus? which I record here, when I saw the "red hat" of the *Freeman* bobbing up and down through the crowd like a cork in a pond. "Dab hot" I overheard him observe to a friend, as he

mopped his forehead with his handkerchief and proceeded to assure a young female—who waxed importunate over two-and-sixpence which it appeared she required for a "backy pouch," which never could have looked a smoker in the face if docketed 4d.—that he hadn't a "fardin to rattle on a tombstone," with which elegant observation the damsel seemed satisfied and withdrew. Of course the "special" of the *Egotist* was there staggering under a pile of club colours which he carried on his hat by way of ballast to counteract, I suppose, the vacancy within his cranium. He didn't see me, or at least he affected not to; but then his pride is excusable, for it is not every little boy can boast of walking alongside a Major-General, habited in a red breeches and blue shirt.

On Monday evenings, Mountjoy Square, the hallowed home of big-wigs, is thrown open for promenade. A promenade is a promiscuous sort of amusement, composed of a grass plot, fiddlers, white hats, music stools, eye-glasses, bipeds and scent; they are got up partly with a view to help the inhabitants of the square to digest their evening meal, and partly as a sort of "consolation race" for those who don't happen to have an undigested meal about them. Promenades "aren't my forte," as Artemus would say, you see I don't quite perceive their object. I wasn't quite at a loss to know what the grass plot was for, nor were the bipeds and scent too much for my comprehension. The grass plot, I know, is for the bipeds to toddle round, and the bipeds are there to talk of what doesn't concern them, and then to go home and repeat their duty towards their neighbour prior to going to rest. I suppose the scent is to *patch-a-lie*, and a rather miscellaneous job it has when the bipeds' neighbours become the topic.

White hats and eye-glasses—familiar rig—are for the decoration of parties whose wives—unsuspecting creatures—are having their afternoon snooze, happily unconscious (with the aid of port and Strasburg pie) of the frightful sins their husbands are committing in the way of (*f*)ogle stealing from that elegant monument in black velvet. The monument, you will understand, is a wealthy party, or perhaps she wouldn't part with her trinkets so quietly. But what the band and music-stool are for is slightly large for my imaginary powers; the band we had at the square only played up one cheerful strain in two hours, which was entitled "Harmony—Strike the Lyre gently." I cannot say is the composer one of the class who applies for gentle chastisement; but if he is not, or if he was not inebriated when he transcribed the title, why does he call it a "Harmony?" But, leaving this aside, I confess I should have experienced a heart-felt pleasure in striking any procurable liar, nor indeed would a Petrarch have been objected to had an "unveritable" party not been handy. Such, dear reader, is the sad effect that bad music may have on a sensitive Christian who is nearly banjoed, boned, and barrel-organed out of existence.

People unskilled in calisthenics had better not attempt promenades, as it takes a perfect master of the art to avoid trampling on the gorgeous tails of the dowager peacockiana of the square. For corroboration of my statement I look to the frequenters of promenades, and ask them have they not often been amused by the sight of a nervous swell hovering round the suburbs of some dashing damsel, like a dragon fly round a sugar bowl, gallantly trying to avoid that which his nervous awkwardness is sure to encompass, at last the climax arrives, out goes the blundering foot—zip, zip, crack, and the frailty of tight bodices becomes apparent—the "dashing damsel" suddenly stiffens up and goes through a performance closely assimilating to that which might be necessary to perform a salaam backwards; the nervous party uncovers his head, and sack-cloth and ashes is all that is necessary to complete the ideal of mute sorrow.

OLYMPUS.

B



### "ORANGE" AND "GREEN" CORPORATIONS.—A RETROSPECT.

WE are old enough to remember the last years of the predecessor of the present municipal body, which is still styled by many as the "Old Orange Corporation of Dublin." Some of its transactions would not bear close scrutiny, and we have no desire to act as its apologist. It was an exclusive assembly, and its feeders, the ancient City Guilds of Trade, were part and parcel of its weakness and its strength for good or evil. If any persons desire to see the state of public opinion in Dublin anent Corporate matters previous to the passing of the Municipal Reform Act, let them consult the files of the Dublin Press in the years 1838, '39 and '40. The "Orange" Corporation in these years had to bear many a fierce taunt and severe onslaught at the hands of liberal reformers—Catholics, Protestants, and Dissenters. It was to be expected that the former class felt deeply aggrieved on account of their continued exclusion for long years from the places of honour and emolument in the municipal body.

Leaving, however, the religious feeling aside (which we have no intention to discuss), we take note that the severest taunts flung in the face of the Old Corporation consisted of charges of corruption and jobbery!

The public funds were said to be extravagantly wasted, and a number of unnecessary offices existed. It is not to be denied that a large amount of the funds of the old body went for work and supervision; but work was actually performed, although it was betimes costly.

When there was a Paving and Lighting Board in Dublin, and when the Wide Streets Commissioners existed, with other kindred bodies apart or in connection with the municipal body, the condition of the city in a sanitary direction was far preferable—in fact fifty degrees better than it is at present. The taxation was not one-half; the citizens, merchants, and traders resided in the city; and numerous streets of houses that are now in a tumble-down condition and occupied as wretched tenements, were inhabited by the gentry, merchants, and professional classes. To any one who remembers the city forty, or a little over thirty years ago, the change is a saddening and lamentable one. We were promised by the Dublin Press in 1840-1, when the "Reformed Corporation" came into office, that our taxation would be greatly reduced, and that the ratepayers would have a voice that would always be listened to with respect, and that every ratepayer would have free access to examine the Borough Accounts.

A new broom, says the adage, sweeps clean; but the new municipal broom was not long in getting so clogged with dirt as to render it unable to remove the filth thus accumulated through its sluggish use. A very few years passed before a worse condition of matters loomed, which became eventually realised, than was ever thought possible, and which was never approached under the old régime. Ere the end of the first decade of the "Reformed Corporation" had engendered so many gross abuses, a well-known respectable citizen and member of the body wrote a series of letters in a daily journal, exposing the evils, and foreshadowing greater ones. Gradually the respectable, energetic and practical members of the Town Council dropped off, and their places were filled up by mere demagogues or nonentities, who, by their actions and weekly exhibitions, transformed the meetings into a bear garden. As "evil communications corrupt good manners," some good men became gradually corrupted and demoralized; and representatives elected to represent the people began to represent themselves. It became "a stroke of business" to succeed in being a Town Councillor; for, when a member's trade might represent small returns, a seat on a water-works or drainage committee promised something handsome. Welch paving-stones or Scotch cast-iron water-mains or other appliances, meant the ex-

penditure of some thousands of Irish money; and the wise and prudent ones on the committee who could succeed in influencing the council to vote for their supply, were sure to be remembered as a matter of business on the other side of the Channel. That they were remembered, we have good reasons for knowing, as the ratepayers have good reasons for not forgetting. Having once tasted the sweets to be got by municipal representatives on indispensable requirements, it became necessary to keep the fountains of supply welling. Projects were announced one day in council, and backed next day on the Press, the same hands or agents being the wire-pullers. Bills succeeded bills, and schemes succeeded schemes, and, as a natural result, costs were heaped upon costs, to wipe away which rates had to accumulate upon rates. The wise and prudent men continued to feather their own nests, and smiled blandly on the deceived citizens, who were so well deceived as to begin to wish success to the efforts that were being made and endorsed by themselves for their own undoing.

It is hardly necessary that we should carry the details of the system further. The engine and service train ran with wonderful luck for a considerable time, meeting only with occasional obstructions and an odd collision or two, but at last the breakers ahead became many, shutting became impossible, and the inevitable crash came. Thus stands the case of the "Reformed Corporation" of Dublin after upwards of thirty years' run. Compare it now with the worst days of the "Old Orange Corporation," and what a miserable figure it would cut in contrast. In *extremis* and prostrate, moneyless and characterless, incompetent and almost imbecile, with half of its former powers and privileges taken away wholly or curtailed in part, distrusted, scorned, and disregarded.

Citizens of Dublin of every sect, irrespective of politics or party! think of it, ponder over it wisely and long, if needs be, and resolve next coming autumn to make an effort that will terminate a system that has so long impoverished and emasculated this city. A new representation is absolutely needed, and we do not care of what creed or politics the members may be. All we desire is to see the return of respectable, trustworthy, and competent men—men who are above jobbery, or the necessity to job, to keep up personal appearance.

It is with a sense almost of humiliation that we thus write of the municipal body; but as we have laboured honestly and long, and above board, to reform the abuses of the Corporation of Dublin, justice demanded that we should draw the pictures we have presented. We might have painted them blacker without the least exaggeration, but "sufficient for to-day is the evil thereof."

### PUBLIC RIGHTS AND PUBLIC NUISANCES.

#### DRAINAGE AND SEWERAGE.

##### SEVENTH ARTICLE.

OF all sanitary requirements for the preservation of the public health there is not any more important than the providing of a good drainage. A good drainage however, depends upon more than the construction of culverts or sewers, or the laying down of impervious pipes with a proper fall. Efficient paving adds to efficient drainage, and both are necessary for town improvements, individual comforts, and public health. On the dryness or wetness of the soil upon which human dwellings are built, the sanitary condition of the inhabitants to a very great extent depends. Drainage of soil is, in the opinion of some medical authorities, a frightful cause of phthisis; and others assert that the distribution of cholera in a country rests entirely upon certain conditions in the level of the subsoil waters. In towns that have been so sewered that their sewers act also as "drain-sewers," whereby the subsoil

water of the town has been lowered, it has been proven that the death-rate from phthisis has decreased, and sometimes to a large extent. On the other hand, it appears in which towns have been so sewered with impervious pipes throughout, that the level of the subsoil water has not been lowered, and the death-rate from phthisis has not decreased, but rather increased. It is argued from this, in the first place, that brick sewers (the invert only being constructed with cement) do, as a matter of fact, act as drains and lead to the lowering of the subsoil water under the houses; and, secondly, where pipes are used for mains, the above result is not effected. The conclusion, therefore, would be, that, wherever pipes are used throughout a system of sewerage, it becomes necessary in most instances that drains should be provided for the drying of the subsoil. It has been proposed, therefore, to separate in all cases the sewage properly so called from the surface waters, and to carry out a durable system consisting of impervious sewers to carry off the refuse water and excretal matters of the population and superficial drains to carry off the surface waters into the nearest water-course.

This method, however, does not provide for the drying of the subsoil, though it is advisable for many reasons to keep the extraneous water out of the sewers while rescuing the powers when necessary of turning it into them. It is not considered wise, on the whole, to sacrifice the drainage of the subsoil. Apart from this it is acknowledged that besides phthisis, other diseases, especially scrofula and rheumatism, are favoured by the dampness of the soil.

According to Dr. Buchanan's researches, no such influence was noticed upon lung diseases other than consumption. Dr. Pottenkoffer, of Munich, is of opinion that the spread of cholera can only take place in localities where there is a porous subsoil containing putrescent organic matter, with a subsoil water which is liable to fluctuations of level; and he is also of opinion that enteric fever is subject to similar conditions. All this goes to shew that the drainage of the subsoil is a very important consideration.

Coming closer to the matter of drainage in connection with human dwellings, it is absolutely necessary that the basement of each house should be made as dry as possible, whatever may be the state of the subsoil. Air spaces should be provided between the basement floor and the ground, which should be ventilated by means of air-bricks in the walls. Advantages will be secured always by having a layer of concrete three or four inches thick spread over the ground beneath the house, and in the construction of new houses a damp course should be inserted in the walls near to the ground, to prevent moisture arising through the walls. Of these matters the medical officer can only tender his advice, supposing he has any practical or technical information thereon, for he is not granted by the present acts in operation any control over the erection of buildings.

In the new "Metropolitan Buildings and Management Bill" now before Parliament, the Metropolitan Board of London will have better defined powers in respect to their control over drainage and the erection of buildings; and here in Dublin we need a reform in the same direction, as many buildings are put up which receive no supervision on the part of the authorities in the matter of height, projection, cubic space, ventilation or draught. In the construction of houses intended to be let in tenements, or in the conversion of others into tenement houses, little or no provision seems to be made for sanitary arrangements or common wants. Even in the London bill above alluded to the tenement buildings have been overlooked, but there is reason to hope before the bill leaves committee the matter will be attended to.

In Dublin more than a third, perhaps nearly one-half, of the tenement houses inhabited by the industrial classes and poor were formerly mansions—town houses of the nobi-



lity, and merchants and traders. There is almost a complete absence of all sanitary arrangements in these houses under their present condition. They have mostly back yards, many very small—one ashpit and one place of accommodation for six or seven families, sometimes more. The one water-butt or barrel is resorted to by the whole household, and this is seldom cleansed. If there be a turncock or tap, in many cases it has disappeared from the barrel, tank, or cistern, and, where the latter exists, the head or cover is not to be seen. The slop-bucket or black kettle is as often as not dipped in the butt or tank, and carried perhaps in a leaky condition up three or four flights of stairs, proving to a demonstration that the water vessels of the tenement inhabitants shew a better system of drainage than the choked sinks under the cistern or water-butt in the front kitchen area. The landlord or his weekly collector listens to the complaints of the tenants when on his weekly round, but the grievances are allowed to go in on one ear and out on the other: the tenants must help themselves, and enter into a mutual alliance with each other to pay for the cleaning of their own ashpits and nearly all else beside. So long as a large class of tenement landlords can keep the houses from tumbling down, and can find tenants to pay their rents and keep the houses in repair for them, the world goes well with them.

It is time that a revenge should come, and that such a system of landlordism should be stamped out. It is not the poor, in many instances, but those rapacious house-owners and letters of tenements who are the creators of our nuisances. It is quite time they should be stamped out or brought to reason for their pernicious practice and example.

House drainage and sanitary requirements in connection are much neglected; but before the people are persecuted, they need to be prosecuted, and before being prosecuted they need to be educated. The very poor often err through ignorance and lack of means, but house-owners often knowingly and wilfully abstain or avoid complying with regulations that put them to the least expense, not caring who may suffer, so long as they can escape. The local authorities, too, are shamefully remiss, and it is as well that a central power should be in existence to hold them amenable for neglect of obvious public duties.

#### THE DECORATION OF ST. PAUL'S CATHEDRAL.

THE exhibition of Mr. Burges' models in the architectural room of the Royal Academy (writes Mr. G. G. Scott, jun., in the *Academy*) is an invitation to criticism. It is impossible, however, to treat them simply by themselves, or to avoid taking into consideration the general scheme of which they form a part. No church is considered at the present day "correct" until it has been, as the phrase is, "restored," and accordingly a so-called Restoration of St. Paul's has been going on for some years in a fitful, hesitating sort of way. The authorities appear to have had a vague feeling that they ought to do something, though what should be done no one exactly knew. Public opinion required that St. Paul's should be restored, without giving any more definite indication, and the authorities have acted in accordance with public opinion. Since 1858, when the works commenced, the organ has stood in three different parts of the church; a monster organ has been put up in the south transept, and has been taken down again; the stalls have twice been rearranged; and lately the whole floor of the choir has been raised a step or two, with no very obvious intention. Many windows have been filled with Munich glass, which it is now proposed, very wisely, to remove; the vaulting in the choir and elsewhere has been painted and gilt, only to give place, as we are now told, to stucco and mosaic; and the interior has undergone a costly process of scraping to produce a new and clear surface, which Mr. Burges is to

cut away and replace with marble. The Wellington Monument, designed originally to occupy one of the arches of the nave, is now being erected in the chapel which used to serve as the consistory court. By this change the whole motive of this fine design is lost, and the tomb has the effect of a large four-post bedstead standing in a small dressing room. The altar has been moved out of the apse, which is to be occupied instead by the consistory court; a quaint arrangement, probably intended to symbolise the supremacy of the law. The only decided step which has been taken is the destruction of Wren's screen and the entire alteration of his choir arrangements. This change is greatly to be deplored. The dome forms the commanding feature of the interior: it cannot be treated as a mere lantern tower; it must form the point to which the climax of the entire design works up. The nave and transepts must be treated as leading up to the dome, the whole effect centreing and finishing there. Wren provided for this effectually by erecting a very massive and noble screen surmounted by the organ, thus completely separating off the choir from the dome-space. The removal of the screen has proved conclusively the wisdom of its erection. The choir now gives the effect of a gloomy tunnel, at the extremity of which a small altar may be described by those who happen to be placed in the centre of the dome. It is surely too obvious to need enforcing, that the dome is the grand and governing feature of the whole design, and that the choir must be considered as altogether distinct, having its own proper treatment working up to its own altar in the apse. It is simply the chapel of the canons, where their services are performed at their own altar. This is as far as it was possible, in Wren's time, to carry the matter; but as the cathedral is now happily used for great popular services, altogether independent of and in addition to the regular service of the chapter, it becomes necessary, of course, to erect a second altar to meet the new requirements. A people's altar under the dome is what we may be sure Sir Christopher had in view in his design. He had conversed at Paris with Bernini, who had erected the great baldacchino under the dome of the Vatican Basilica, and there can be no doubt of his opinion as to the proper treatment of the dome-space. Indeed, his original and favourite design, the model of which is now at South Kensington, points to this arrangement and nothing else. A dome such as this, designed as it is for great popular assemblies, demands a grand people's altar. Nothing short of this will be satisfactory to men of taste, and nothing less will meet the wishes of those who frequent the services of the cathedral. It is creditable to the architectural profession that all the members of it who have published their opinion upon this question (with the doubtful exception of Mr. Penrose) have taken this view. Wren did all that he could to prepare for this grand completion of his work by cutting off the choir, in the most effectual way, from the dome and the nave by the screen and organ. Of this fine monument it may now be said, "si quaeris, circumspecte," for it is scattered in fragments all over the church. The first step to a satisfactory treatment of the cathedral will be its reconstruction and restoration to its original position.

The screen was removed in order, as we were told, to throw the choir open to the dome, and so to introduce on a large scale the arrangements of a parish church. But it has been found, as any architect might have foretold, that it is quite impossible to use the two portions of the church together. At the great services the singers are not placed in the choir at all, but in the eastern portion of the dome-space. Placed in the stalls they would not be heard at all. The choir now glooms before the congregation, a vast empty expanse of darkness. It does seem a monstrous thing that so fine a work of art as the screen and the organ upon it should have been broken up into fragments, for nothing else whatever but to prove the

impossibility of using the dome and the choir at the same time.

The dome altar should of course be surmounted by a baldacchino. I am aware that this feature has been condemned by an ecclesiastical judge, but the decisions of such courts are of no great account in art, and cannot certainly be allowed to stand in the way of a great architectural improvement which is quite free from any party significance.

Passing now to the examination of the models which have given occasion to these remarks, two main criticisms suggest themselves.

The great defect of the interior of the church is that the light is admitted mainly at a low level.

It is essential to a dignified internal effect that the light should enter from above. In consequence of the large size of the aisle windows, and the gloomy colouring of the dome itself, this most important element of design is lost. The correction of this defect must be the first aim of any reasonable scheme of decoration. The clerestory windows should be filled with stained glass of a bright silvery tone, and the central body of the church kept as light in colour as possible. The aisle windows should be treated with glass of a rich and sumptuous character, and the colouring of the walls kept rather dark. This principle does not appear to have occurred to Mr. Burges. As far as can be judged from the models as Burlington House, the lower portions of his design are the lightest, and the rich colours are reserved generally for the vaults. The aisles, too, which ought to have been kept down in tone, in order to give the utmost effect to the light admitted by the clerestory, are treated with as much or even more white marble than the central space. There seems to be a want of a true grasp of the problem. The plan, with much ingenuity in detail, appears that of a clever man working in a style which he does not enter into. There is no objection on principle to the substitution of marble for stone, but the marble ought to be introduced only where Wren would have used it had he possessed the means. He would, I conceive, have employed it only for the pilasters and panels, and not have lined his whole walls with a marble veneer. The adoption, moreover, of white marble seems to be a great mistake. The cold, bluish tone of white marble would be singularly unfortunate in our London atmosphere. Even the Greeks, having at their disposal the beautiful marble of Paros, toned down its rawness with a saffron stain. The effect of ordinary white marble when the joints become emphasised, as they very soon must be, with soot, would be far from agreeable.

The second criticism to be made is that the design for the decorations is not conceived in the same spirit as the structure. There is an evident hankering after Renaissance, and the absurdity of decorating St. Paul's in Cinque Cento is parallel to that of painting a fifteenth century church in the Early English manner. This tendency is shown very unfortunately in the treatment of the flat domes—in the vaulting both of the choir and aisles. These, instead of forming broad spaces for painting or mosaic, are to be broken up by a circle of stucco ornament in their centre, and by radiating lines cutting up the surface into small panels which are to be occupied by little busts. Such a treatment belongs altogether to an earlier style. It would be better not to attempt the thing at all unless it can be done by one who can handle the style *con amore* as his own. If marble is to be introduced it is not to the Cinque Cento style that we should look for models, but to such works as the Church of Sta. Maria della Vittoria, and the Borghese Chapel in the Liberian Basilica at Rome. These fine works, though somewhat earlier in point of time than Wren's date, are to all intents and purposes in the same style as our cathedral, since we were always in this country much behindhand in the development of the Italian style. On



the whole, the inspection of the models leads to the conclusion that it would be better to leave the church alone. The man capable of so great a work has yet to be found. Mr. Alfred Stevens, the author of the design for the Wellington memorial, might have been equal to the undertaking, but there is no one else who could be expected to succeed where Mr. Burges has failed. We, therefore, arrive to the humiliating conclusion that the time for the decoration of St. Paul's has not yet come. No committee, however capable, can create the man required for such a task; and failing this, it is to be hoped that the proposal may be indefinitely postponed. The restoration of the screen and the erection of the dome-altar and its baldachin are quite as much as, under the circumstances, we can hope to see satisfactorily carried out in our time.

### SOMETHING NEW TO NEWRY.

A PARAGRAPH in our last issue, partly founded upon a statement in the *Newry Telegraph*, and strengthened by our experience of the wants of the town, has been copied by our contemporary, and followed up by a "leader," due time being taken for the consideration of the momentous question. To shew how wroth our northern contemporary is, we quote a paragraph in which are beautifully embodied some few sentences of our own:—

"But it is, we must confess, something novel to have sanitary reform preached to us, of this frontier town of the North, and our local municipal administrators threatened with 'a rap over the knuckles from the Local Government Board,' on the part of a journalist writing with the rank atmosphere of the odoriferous Liffey offending his nostrils, while his eyes rest upon human rookeries, densely inhabited, but outwardly and inwardly in a state so disgustingly filthy as to beggar description. 'Satan reproving Sin,' which Hogarth or Cruikshank has made the subject of a fancy caricature, might not be an inappropriate title for the extract from the *Irish Builder* quoted in our Thursday's issue, that does grievous injustice to our Town Commissioners, and perverts the obvious meaning of a recent article of ours, which certainly did not involve a charge so monstrously unjust and wrongful as that imputing 'that the local authorities continue to be remiss in their duties.'"

The above is the strongest paragraph we can find, and we hope our spirit of fairness in this particular will commend us for good breeding and journalistic courtesy to our frontier town contemporary of the "Black North." Our northern friend must have known, if he has read constantly his *IRISH BUILDER*, that there is no journal in Ireland or out of Ireland which has so often and so persistently exposed the neglect of sanitary duties that has signalled the conduct of the Corporation of Dublin. In almost every issue for years we directed attention to sanitary neglect at our own doors; and, at the expenditure of considerable time and money, we have been for years educating the masses, and inducting into their heads a knowledge of the laws of public health. If we performed no greater service than this, we would have qualified ourselves to speak, and point out local neglect elsewhere, and its consequences.

Newry is not a model town, and her system of drainage and sewerage is far from being perfect; neither are her commissioners, as a body, performing all the duties that devolve upon them, though we are free to confess the local board contains some earnest and honest men. It is nearly too late in the day to defend our position on sanitary grounds, although our contemporary thinks it is "something novel" to have sanitary reform preached into its ears. It is something same, we opine, that of preaching sanitary reform into northern ears, knowing that for the last fifteen years we have been dimming it into the nation's ears—north, south, east, and west. Only that we are aware that our Newry contemporary has appeared of late years on the day of its stated issue regularly, we would be inclined to think, on reading its article, that it lapsed publication for

some time, and that its editor indulged in a Rip Van Winkle nap, and then, awakening suddenly, discovered that a new science was born into the world, and new men with new ideas, and that everything in general was new, and one thing in particular was novel—that of preaching sanitary reform to Newry! Our national poet, we believe, said that there was nothing new under the sun. Had he been born in Newry instead of Dublin, he would have quickly found out his mistake, recanted his errors, and died in peace with the world.

Since the above was in type, an article in the *Newry Reporter* has been brought under our eyes. It calls for no extended or particular notice. What we have said in reply to its contemporary—one matter, perhaps, excepted—will also apply in its case. A little more evidence of good breeding and better manners might have been expected from such a brave defender of Newry, and it would not be amiss if the resident editor imitated the reputed "non-resident" one, and went awhile on travel. A change of air, and intercourse in the centres of civilization, would have a marked effect on the language and bearing of the writer in the *Reporter*.

### CIVIC LYRICS.—No. LXIII.

#### STRIKING POINTS.

A Printer went to Chapel,  
To hold forth upon his trade,  
With grievances to grapple,  
Long standing, it was said.  
  
He left his stick behind him,  
As he did not wish to strike!  
For the galleys might remind him  
Of confinement and the like.  
  
Gaunt, empty forms he hated,  
Where he could not use a quoin;  
He was locked-out, so he stated,  
Where he locked-up ev'ry line.  
  
His foreman was the preacher,  
In this Chapel politic,  
Who flung the poisoned apple  
Where his comrade cut his stick.  
  
The Master heard next morning  
From his foreman what took place,  
And he said his turnover  
Should continue at his Case.  
  
How came the sad disaster?—  
'Twas an organ in the Mall,  
Played by a great Schoolmaster,  
To the tune of Too-ral-lal.  
  
Of Tally Ho, the Grinder,  
Sure I must not speak about,  
As press of other matter  
Would lock that genius out.

CIVIS.

### NEW CATHOLIC CHURCH, BALLYOUGHTER.

WITH our present number we give a perspective view of the Catholic Church at Ballyoughter, Co. Wexford, now in course of erection. The internal dimensions are—nave, 76 ft. by 30 ft.; chancel, 20 ft. by 16 ft. The roof is open sheeted, with arched principals. The walling is of local brownstone, with dressings of a white sandstone obtained from a quarry in the neighbourhood. This quarry has for many years lain unworked, but it is to be hoped that the use of the stone in this building will lead to a demand for it in similar structures. It is easily worked when taken from the quarry, but after exposure to the weather, becomes as hard as Portland. The same description of stone has been used in an old abbey in the vicinity for the tracery of windows, which are still in a good state of preservation.

The works at the church are being carried out by days' work, from the designs of Mr. G. C. Ashlin, architect, St. Stephen's-green.

### HISTORIC NOTICES OF CLONTARF AND NEIGHBOURHOOD.

In the valuable notes appended by the editors of the new volume of Archdall's "*Monasticon Hibernicum*," now being published by Mr. W. B. Kelly, of Grafton-street, there are several interesting particulars given respecting the ancient village of Clontarf. We are tempted to extract these notes, both for their local and historical interest. Although the late John D'Alton, in his "*History of the County Dublin*," chronicled a good many important events, yet we have ever considered the district of Fingal alone would need a history, civic and ecclesiastical, of its own; and, with diligent research, sufficient materials would be forthcoming to form such a volume.

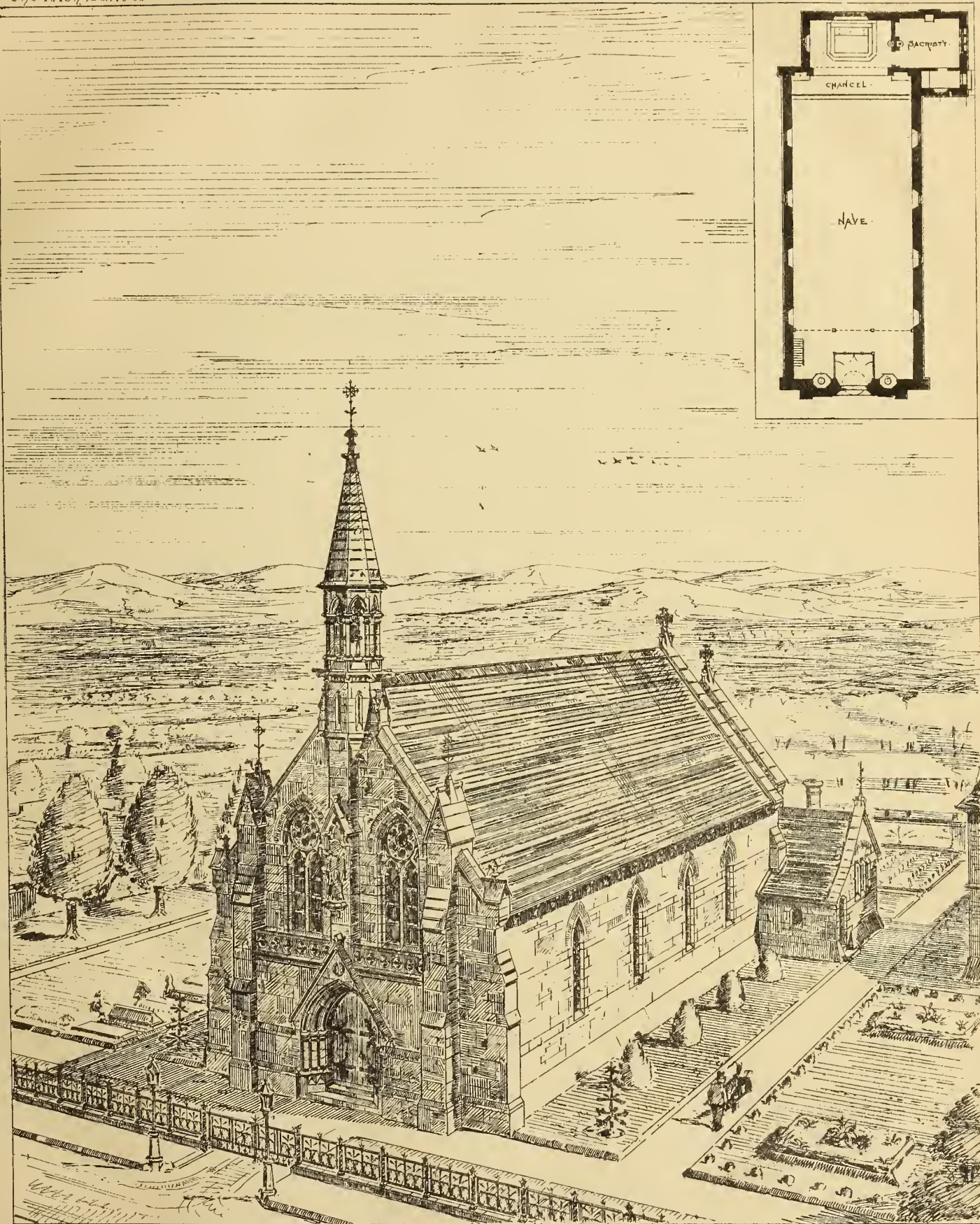
The village of Clontarf is, however, a historical and prominent landmark in Irish history, for reasons that are obvious to every Irishman, and, therefore, the following notes will be acceptable to readers who cannot procure the volume from which they were taken, or the other works alluded to:—

"*Cluan-tarbh*, i.e., the Plain of the Ox, situated in *Sen-Magh-n Alta Edair*, i.e., the Old Plain of the Flocks of Edair, a Tuathade-Danaan chieftain who dwelt on the Hill of Howth (Ben Edair), towards the close of the century preceding the Christian era. It is, perhaps, so called from the roar of the waves breaking on the sandy strand which is known as the North Bull; the opposite bank, on the other side of the Liffey, is called the South Bull.

According to D'Alton's "*History of the County of Dublin*," the church referred to in the "*Monasticon*" was founded during the lifetime of St. Comgal of Bangor, about the year 550. There seems to be no further record of it unless that St. Aedhan of Cluana-tarbh commemorated July 3rd in the Martyrology of Tallaght, belongs to this locality. There was, however, another place called Cluan-tarbh, now Bull Hill near Narraghmore, county Kildare. St. Aedan's genealogy is given in the *Trias Thaumaturga*.

On Good Friday, the 23rd of April, 1014, the Danish power in Ireland was for ever broken in the memorable battle waged in this locality. The site of this battle lay between the river Tolka and Artane, and the fields beyond the Castle Avenue. In this locality tradition maintains that Brian's tent stood, apart from the heat of the contest. "Brian Borunha's Well" lies in the field to the east of Clontarf Castle. It was closed up some years ago, and the water conveyed to a modern well in Castle Avenue. Some fields in the demesne at Merino are called "*The Bloody Fields*." It was here probably that the battle raged most fiercely, extending to the sea shore, and the returning tide, which was full at three o'clock on that day (*vide* W. G. G., p. xxvi.), helped on the work of destruction. Innumerable corpses choked up the estuary of the Tolka, which the receding waves left on the strand "in heaps and in hundreds" (W. G. G., p. 193, cap. cix.). Thurlogh, the grandson of Brian, followed the retreating foe, when "the rushing tide wave struck him a blow, against the weir of Cluan-tarbh, and so he was drowned, with a foreigner under him, and a foreigner on his right hand, and a foreigner on his left, and a stake of the weir through him; he was also one of the three men who had killed most on that day" (*Ib.*, cap. ex., p. 193). Hence this battle is called *Cath Coraidh Cluana-tarbh*, i.e., the "Battle of the Weir" of Clontarf. The Bridge of Ballybough, i.e., the "Town of the Poor People," stands on the site of this Danish salmon weir, and will be in a short time the only memorial of this battle, as the slobland on the south side of the bridge is being reclaimed from the sea. At Dollymount there is a sepulchral tumulus or mound. A vague tradition connects it with this battle, but it seems to belong rather to pagan times than





NEW R.C. CHURCH, BALLYOUGHTER, CO. WEXFORD. REV. J. WILLIAMS.







to the eleventh century. It may be one of those mounds on Magh-n-Alta where were entombed the remains of the people of Partholan who were cut off by a plague at the dawn of ancient Irish history.

In 1171, O'Rorke of Breifne and MacDunslevie of Ulidia encamped here, to relieve Dublin, with Roderick O'Connor. Adam Phepo, or de Feipoe, the builder of the Castle of Skrine, got a grant of land here; he is said to have built a castle at Clontarf. The old Parochial Church and Clontarf Castle stand on the site of the Commandery of the Templars, which was founded soon after the Anglo-Norman Invasion; evidence of which is to be had in a deed, anno 1185, wherein one of the subscribing witnesses was Gualtier, a Templar of Clontarf.—(*Vide* Gilbert's "History of the Viceroy," p. 523.)

1307.—December 20th, a mandate was issued to the Viceroy Wogan, to seize the persons and property of all the Templars in Ireland. The knights were seized and imprisoned, February 3rd, the feast of the Purification of the B.V.M., in the Castle of Dublin, and the charges against the Order were investigated in St. Patrick's Cathedral by the Viceroy, in conjunction with the Archbishop, Richard de Haverling. The witnesses against the Templars were Roger de Heton, guardian of the Franciscans of Dublin, and Gualtier de Prendergast, lector in the same convent, together with the prior and abbot of St. Thomas' Abbey. The charges were mere rumours and suspicions. Hugues de Limmour and Guillaume le Bottiler deposed that, at Mass in Clontarf, they had observed that the Templars paid no attention to the reading of the gospel, and at the elevation of the Host they gazed on the ground, and after the "Agnus Dei" they declined to accept the "Pax or kiss of peace," remarking that their order had no connexion with peace.—(Gilbert's "Viceroy," p. 125.)

In 1311, their manor at Clontarf was granted to Richard de Burgho, Earl of Ulster, but their preceptory was retained for the king (Edward II.). In 1312, when the order was suppressed by the Council of Vienna, this preceptory, with the others in Ireland, were transferred to the Order of St. John of Jerusalem.

In 1313, a road or causeway was made from Ballybough to the Manor Mill at Clontarf.

In 1338, Frater Hubertus, Preceptor of Clontarf, was a witness to an inquisimus confirming certain lands to the Monastery of All Hallows.—("Registry of All Hallows," p. 17, I.A.S.)

A.D. 1413; September 25th.—Sir John Stanley, Constable of Windsor Castle, being nominated Viceroy of Ireland, landed at Clontarf, and died on the 18th of the following January.

1415.—Sir John Talbot, the Viceroy, brother to Richard Talbot, Archbishop of Dublin, sailed from Clontarf for England.—(Gilbert's "Viceroy," pp. 301—306.)

In 1440, the manor of Clontarf was sequestered, as Thomas Fitzgerald, then Grand Master of Ireland, was suspected of complicity in the outrage perpetrated on the Lord Deputy near Kilcock, by William and James Fitzgerald, then of the order of the said Grand Master.—(Close Rolls, 19 Henry VI.)

1482, Marmaduke Lomley landed at Clontarf, to assume the Priorship of Kilmainham, in place of James Keatinge, deposed. Keatinge came to Clontarf with armed men, and took prisoner the new prior, and took by violence his letters of election; for this Keatinge was excommunicated.

1527.—An inquisition of the 18th Henry VIII. finds the Commandery at Clontarf, then suppressed, was valued at £20, with reprises.—(Archdall's MS. Additions, R.I.A.)

In 1534, John Allen, Archbishop of Dublin, flying to England, was stranded at Clontarf. He fled for protection to the house of his friend Hollywood, of Artane, whence next day he was taken, and murdered before Artane Castle, on the 28th July. He was, it is said, dragged from the Castle of Artane, and barbarously murdered before the door: the spot

on which this cruel act was perpetrated was left undisturbed, and fenced in. The old Castle of Artane was destroyed in the year 1825, and the present Artane house erected on its site. In 1872 the house and sheds connected with the Reformatory were erected on the scene of the murder of Archbishop Allen.

1535.—Nicholas Moscrow and Hamerton, with a band of soldiers clothed in white tunics, on which were sewed red crosses, were slain at Clontarf by Silken Thomas.—(Dowling's "Annals," p. 36, I.A.S.)

In 1538, Sir John Rawson leased the priory and its appurtenances to Mathew King; and, in 1541, Sir John Rawson was created Viscount Clontarf on the surrender of the possessions of his order.

1600; 42nd of Elizabeth.—Sir Geoffrey Fenton had a grant from the Queen of the manor, preceptory, &c., of Clontarffe, in fee-simple value £20 per annum, to be his on the expiration of the term for which the king held these lands, &c.

1660; August 26, 27.—Grant to same of the manor and preceptory of Clontarffe, with thirty acres of wood at Coolock, called Prior's Wood, with the rectory, church, tithes, &c., of Clontarffe.—(Patent and Close Rolls; Morrin.)

In 1641, the Confederates plundered a vessel which lay at Clontarf. George King, a descendant of Mathew King, being implicated in the outrage, his possessions were confiscated, and granted to John Blackwell, who soon after transferred them to John Vernon, from whom descends the present owner of Clontarf.

In 1704, Patrick MacMahoone, aged 36, was parish priest; he was ordained in 1692, at Lisbon, by the Archbishop of Bruges. His securities, according to the Act of 1704, were Francis Creagh, merchant, of Strand-street, in £50, and Nicholas Sullivan, poulterer, of Fisher's-lane, in the like sum. The Rev. Andrew Tuite, parish priest of Clontarf and Coolock, died January 25, 1771, aged 77. His tombstone and grave are at St. Dolough's."

The above notes could be further supplemented by much additional matter connected with the modern history of Clontarf and neighbourhood. There are many historic incidents and associations, too, of a civil and ecclesiastical character connected with the Barony of Coolock and on the banks of the Tolka, which are worthy of being recorded in a collected form. Of Ballybough, Richmond, Drumcondra, Mud Island, the Big Gun, Merino, and Donnyearney, we may give some notes on a future occasion, of noted characters and occurrences in the latter end of the eighteenth and during the first half of the present century.

#### ANOTHER LIFFEY PURIFICATION SCHEME.

Mr. Henry O'Hara, Civil Engineer, makes public a scheme, a copy of which he avers he forwarded some time since to the proper parties, who appear to have taken no notice of it, or even acknowledged its receipt.

The scheme, however, is not novel, having been suggested, with modifications, years ago. The scheme is neither more nor less than the flushing of the sewers, the sewage flowing through them being diluted by ample streams of water.

The plans previously offered by others, Mr. O'Hara thinks, were based upon the supposition that the river required to be cleaned, whereas, in his opinion, the river purifies itself; and "its bed is well washed four times every day by the tides." We append an extract:—

"An ample supply of water can be obtained from the Grand and Royal Canals which encircle the city on high ground. A considerable body of water flows through each canal uselessly into the sea. That water may be utilized by turning it into the existing sewers, and through them into the Liffey. The annual cost will not much exceed the

rent you formerly paid for the supply of the city basins. The quantity of water conveyed by the canals is sufficient for the purpose now suggested, and capable of being greatly increased without interfering with the companies' navigation. If the waters drawn from the canals be turned into the sewers, a current of fresh air will accompany them, and the purification will be complete. Streams of water should also flow along the street channels and from them into the sewers. In every quarter of the city, particularly those parts occupied by the poor, by the edge of the footpath are numerous small pools of thick fluids, which, by evaporation, become more dense and poisonous before they are swept into the drains. Simple and comparatively inexpensive arrangements will distribute sufficient water from the canals through every street, channel, and sewer, to wash out to the sea all stagnant accumulations, and thus render the city healthy and the river perfectly clean. During the summer, the plan now submitted may be tested. If tried, it will be adopted, and the drainage problem will be solved."

Were we to admit that the carrying out of Mr. O'Hara's proposal would solve the problem and save the city considerable expense, see in what a predicament we would place our paternal Corporation. What would become of our Main Drainage Committee and our two engineers, and the staff of assistants? Twenty thousand pounds have already been expended for doing nothing, and Mr. O'Hara goes in for spoiling trade and throwing a lot of cold canal water upon a project that is likely to offer many years' profitable employment to a number of wise and prudent men, who are famous for doing nothing—that does not bring them something.

Flushing the sewers of Dublin was tried twenty years since, on a small scale, by a member of the Waterworks Committee, who, we believe, obtained a patent for his machine, but who has long since lost all faith in his invention.

#### RATES AND RATING.

In the Corporation, the following subjects came under notice:—

*Rating of Public Buildings.*—Alderman Durdin brought under the attention of the Council, the advisability of rendering Government and other public buildings liable to rating for the purposes of local taxation, and suggested that a petition to Parliament should be adopted, praying the extension to Ireland of the clauses of a bill now before Parliament for that purpose.

*Maintenance of Lunatic Asylums.*—The Town Clerk read letters from the town clerks of Limerick and Waterford, submitting resolutions and petitions to Parliament adopted by their corporations, in reference to the maintenance and government of district lunatic asylums in Ireland. The petitioners sought to have a fair representation of the ratepayers on the boards of management, and to have the expenses divided between the owners and occupiers of rateable property, as is already the case with regard to the support of the destitute poor. On the motion of Mr. Dennehy the matter was referred to No. 3 Committee.

*Application of Fines.*—A letter was read from the Town Clerk of Enniskillen, suggesting that the fines levied for drunkenness should be applied in aid of the local rates, instead of going to the Consolidated Fund.

The above subjects deserve attention.

#### THE MUNICIPAL AND PARISH RECORDS OF DUBLIN.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I am very glad to see that the IRISH BUILDER, June 1st, has noticed the matter of our "Parish Records," and I thank you for reproducing my letter on the subject. Your suggestion points out a very practical course, and if you will kindly give the idea a further ventilation and advocacy, I should have a hope of its being realised in some form or other. As you say, "it would need but little organization to produce from our old Parish Records, a volume which would contain very valuable additions to our local history." Thanking you for your valuable co-operation,—yours faithfully,

W. G. CARROLL, Clk.

St. Bride's Vestry,  
June 14th, 1874.



## THE DIFFUSION OF SANITARY KNOWLEDGE.\*

(Continued from page 159.)

In passing on to the consideration of the subjects that come within the category of sanitary science, I come to a branch of the subject with which I feel that it is quite beyond my power to deal exhaustively, I mean so comprehensively, as to include satisfactorily in general terms its wide and multifarious ramifications. It is imperative, nevertheless, that I should venture at least to indicate those prominent parts of sanitary science of which I have no hesitation in affirming that the general knowledge and general observance are alike imperative and indispensable to the maintenance of the health of concentrated populations in an unvitiated condition. And here I feel also that the task is very much lightened if we continue a due regard to the principle I have already submitted to you—namely, that associated efforts in material subjects, as well legislation on social matters, should be restricted to negative conditions, but that in this direction the one should be vigorously exerted, and the other be rigidly enforced.

If we accept this principle, and proceed to base the outline of sanitary effort upon it, we shall at once be brought to these conclusions; and first in regard to the atmosphere. Its normal state should not be unnecessarily made worse, and never so except upon sufficient cause shown. It follows as a logical sequence that between rival pretensions to deal with that law of decay, of which putrefaction is an inseparable part, that which *cateris paribus* prevents such decay or putrefaction, or other deterioration, from so much as reaching or affecting the atmosphere, is to be preferred. Should there be none such, the next best, in the abstract, is evidently that which most nearly approaches to prevention, and most effectually remedies such as may be inevitable. The question of cost is in principle altogether subordinate. It only enters as a matter of detail. There and then, however, it may assume commanding proportions. For instance, the case may be conceived in which an injurious taint of the atmosphere may inevitably and inseparably attach to a particular manufacture. On the other hand, it is quite conceivable that the manufacture characterised by this defect may be of very great importance, and the locality in which it is carried on might be one in which the injurious taint was all but confined in its effects to those conducting the manufactory or directly benefiting from it. Moreover, the actual state of science as to repurifying the atmosphere from the taint might be at a low ebb. There might possibly be no particular remedy whatever except at a cost and by exertions that would prove fatal to production; or if there were one it might be unknown or undiscovered, which amounts practically to the same thing. To lay down a hard and fast rule made to apply alike, and under similar enactments to such vitiations, and to vitiation, wanton, vicious, and preventable, would be exactly what our legal enactments have done and pretend to do, and affords but another illustration of the mischief in practice, as much as in principle, of that fond resort to Parliamentary fetters and hand-tying which, for my part, I deem a worse remedy than almost any evil against which it may be directed.

I am aware that an opinion is in some quarters entertained that we, or at least that certain parties are in possession of all knowledge, now or ever to be attained, on sanitary matters. Those who think so point with emphatic satisfaction to our actual state, reasoning not unnaturally from their own point of view, that these their convictions need only to be acted upon in order to produce that which we all desire—namely, the most perfect sanitary condition which it is possible to attain. This opinion is held, and very stoutly maintained, by men whom I have called not uninfluential. They are so far from being uninfluential, that the great metropolitan area, in a microscopic fragment of which we are assembled, has been brought under the pains and penalties with which, in their fondness for enforcing their views by the instrumentality of legal enactments, they grace their convictions. . . . I might be told that it is impossible for an individual householder to deal with putrescible matter of the various kinds incidental to our existence without offence and injury to his neighbour; that no new tribunal whatever is necessary to determine a self-evident fact, and that, moreover, a fact which the Legislature has recognised after mature consideration; and that the panacea exists already, and needs only to be universally and compulsorily applied. Surely the general dissatisfaction with the existing state of things affords an irrefutable reply to so wide an assertion, however confidently it may

be affirmed. Were it possible for a moment to assume the premiss, is it not evident that the opinion that the premiss is sound is not so generally received as to be acted upon?—It is impossible almost on any day to take up a newspaper that does not contain some reference to the miserable and dangerous conditions under which we carry on an existence needlessly endangered. Now it is an hospital that has to be reconstructed; then an epidemic spread by means of what it is customary to call milk, next we have an account of cabs alternating between loads of infection and persons to be infected; then contaminated bread; then towns under injunctions—rivers resembling nothing so much as sewers, and so on. Yet in all this category we touch but one form of the evil—the sin and misery of overcrowding is not so much as noticed. I confess I feel almost overwhelmed by the importance and magnitude of the subject I have ventured to touch.

I would draw your attention to matters of health, and find myself inevitably pleading for everything that can give life value. I cannot keep clear of the moral importance of the subject. I have been told that dirt, over-crowding, drunkenness, and the unnatural fouling of water do not produce an aggravation of the death-rate, even when combined in all the concentrated intensity with which they rage in London. Singularly enough, though I am not at all prepared to accept the conclusion, I had myself, before I was so informed, attributed to a coincident neglect of the primitive religious obligations of cleanliness in all relations of life, the class selfishness, the party strifes, the filthy clothing, and the foul habits which disgrace so huge a proportion of our population. I am almost afraid, even in this assembly, of being deemed impractical if I set before you the power of true knowledge as much more effective than the instrumentality of a code of rules; but my effort is directed precisely towards this object. The glory of man is dependent on individuality, and we can do nothing aright if we ignore this. We may get work done and we may create misery; we may degrade man and we may foster vice by treating him as droves of cattle are treated; we may rule and we may regulate him; we may render him almost an automaton or animal, but we can never by this means elevate him, never benefit him; we cannot take a single true step towards the lasting prosperity of the nation except by bringing home to him his own individuality and his personal office in the daily duties and functions of his life. I hope you will not deem this a digression. On the contrary, the facts that constitute the danger of its being so regarded constitute the huge barrier in the way of all real sanitary amelioration. If once you realise that man's duty is to work, but that it is his privilege and his right to be clean in his person, clean in his clothing, clean in his dwelling, clean in the clusters of dwellings, I make bold to say the day is won, the victory secured, the triumph of science certain, for it will be carried out in action.

And now I will venture to add but one consideration more upon this head. I, for my own part, am persuaded that cleanliness is economical and filth the foulest wastefulness. I will put this very generally. Take the instance of smoke, which I have not touched upon as yet. In a country teeming with manufactures, compelled by reason of its low temperature to maintain an exceptional amount of domestic fuel consumption, and possessing a fuel which improperly applied is peculiarly dirty, no arrangement could well be devised more wanting in cleanliness than suffering the perpetual escape of falling smuts, sully, smudging, spoiling everything they touch, and lodging, nestling, fixedly everywhere. Our houses are built of rough-surfaced material, giving all possible harbour to this dirt. But all that dirt is fuel wasted, the product of misapplication, destructive to substances, and more or less prejudicial to health. Again, millions of tons of friable material are carted at enormous cost into our streets, to be ground into powder by our horses, our vehicles, and our feet. Whilst undergoing this process it is impregnated with animal manure, then wafted round about ourselves and carried into our rooms in clouds of dust, or it is watered into the consistency of mud and carted off again at a repetition of the original cost. We underlay our streets with sewers, drains, connections, gas and water pipes, all without method, system, or protection, and so add as much as we can to the danger, cost, and inconvenience that we can accumulate. When rain falls we are in sore perplexity how to carry it off in subterranean rivers, yet we cart from a distance every drop of water that is used to prevent our being literally choked with dust. We employ water in a manner of which it is at least alleged that it cannot be justified in reflection, yet one of the most recent prominent acts of this society has been to point out, in the most forcible manner that it can, that the whole

metropolis is in hourly peril of conflagration by reason of a scarcity of water. We know that under the most favourable circumstances town air cannot rival the mountain breezes in purity, but we construct a laboratory of foul gases, and distribute the outcome to freshen the atmosphere of towns. We have abundant evidence that water is the most effective known means of spreading certain phases of disease. Is it really on that account that we have rendered compulsory the immersion of the putrescible outcome of the largest and most numerous hospitals in the kingdom, those of the metropolis, into water? We know that all putrescible matter forms the natural fertilizer of, and is a necessary addition to, earth. Is it really on that account that we decree by legislative enactment to throw it into water, by which that value is lost? Now all these acts, unjust as well as silly, arise out of the contempt of individual right and the neglect of individual duty. They all proceed from the substitution of injunction of a means, and of direct action, for the negative commandment of working no ill or prejudice to our neighbour.

(To be continued.)

## THE NATIONAL MANUSCRIPTS OF IRELAND.

In our notice in last issue of the Sixth Report of the Deputy Keeper of Public Records in Ireland, we alluded to the "Facsimiles" selected and edited by Mr. J. T. Gilbert, the Secretary of the Public Record Office. These most valuable materials of Irish history are now being photozincographed at the Ordnance Survey Office, Southampton. We must again say that we do not see why the artistic portions of the work could not be executed in Dublin, as well as the editorial. The following particulars of the origin and history of the MSS. are furnished by the painstaking and talented editor:—

I.—Among ancient manuscripts, preserved in or connected with Ireland, which have survived to the present time, the first place, in point of age, is assigned to that contained in the antique metal case styled in Irish, *DOMNACH AIRGID*—the silver shrine. This reliquary would appear to be that mentioned as follows in an old life of St. Patrick, to have been given by him to his disciple and companion, St. MacCarthen, when he placed the latter over the see of Clougher in the fifth century:—

"*Aliquantis ergo evolutis diebus MacCaerthennum, siue Caerthennum Episcopum præfæcti sedi Episcopali Clocherensi ab Ardmacha regni Metropoli haud multum distanti: et apud eum reliquit argenteum quoddam reliquarium Domnach-airgidh vulgò nuncupatum, quod viro Dei, in Hiberniam venienti, cœlitus missum erat.\**"

The *DOMNACH AIRGID* was preserved as a reliquary in the neighbourhood of Clones, in the county of Monaghan, its ancient locality, till deposited in the Museum of the Royal Irish Academy, about the year 1832. The manuscript in the reliquary was then in four portions, the membranes of each of which had become tenaciously incorporated into an opaque solid mass. Some of the external leaves, successfully detached and expanded, were found to contain part of the first chapter of a Latin version of the Gospel according to St. Matthew, in an uncial character not inconsistent with the age to which, on examination, the manuscript was assigned by the eminent archæologist, George Petrie, LL.D., author of a treatise on "the Ecclesiastical Architecture of Ireland anterior to the Anglo-Norman invasion." The view of Dr. Petrie, as communicated by him to the Royal Irish Academy, in 1838,† was that "we might with tolerable certainty conclude that the *Domnach* is the identical reliquary given by St. Patrick to St. MacCarthen;" and that "as a manuscript copy of the Gospels, apparently of that early age, is found with it, there is every reason to believe it [the manuscript] to be that identical one for which the box was originally made."

"In the present state," wrote Dr. Petrie, "this ancient remain appears to have been equally designed as a shrine for the preservation of relics and of a book; but the latter was probably its sole original use. Its form is that of an oblong box, nine inches by seven, and five inches in height. This box is composed of three distinct covers, of which the

\* "Vita S. Patricii," supposed to have been written by St. Evlin, in the seventh century: "Hanc vitam damus ex tribus pervetustis manuscriptis Hibernicis inter se collatis": *Triadis Thaumaturge Acta*. Lovanii, 1647, 149, 169.

† Transactions of the Royal Irish Academy, xviii. Dublin: 1838.

\* By Major-General Synges, R.E. Read before the Society of Arts, on the 15th ult.



first, or inner one, is of wood—yew; the second, or middle one, of copper, plated with silver; and the third, or outer one, of silver, plated with gold. In the comparative ages of these several covers, there is obviously a great difference. The first may, probably, be coeval with the manuscript which it was intended to preserve; the second, in the style of its scroll, or interlaced, ornament, indicates a period between the sixth and twelfth centuries; while the figures in relief, the ornaments, and the letters on the third, or outer cover, leave no doubt of its being the work of the fourteenth century. A tablet on the rim, and at the upper side, presents the following inscription in the Monkish character used in the thirteenth and fourteenth centuries:

‘JOHNS : O KARBRI : COMORBANUS : S : TIGNACII  
FMISIT.’

Or with the contractions lengthened, thus :

JOHANNESOKARBRI COMORBANUS[SUCCESSOR]  
SANCTI TIGHERNACII PERMISIT.

“Another inscription, in the same character, preserves the name of the artist by whom those embellishments on the outer case were executed, and is valuable as proving that this interesting specimen of ancient art was not of foreign manufacture. It will be found on a small moulding over one of the tablets:

‘JOHANES : O BARRDAN : FABRICAVIT.’

“The inscriptions on the external case leave no doubt that the Domnach belonged to the monastery of Clones, or see of Clogher. The John O’Karbri the *comharb*, or successor of St. Tighernach, recorded in one of those inscriptions as the person at whose cost, or by whose permission, the outer ornamental case was made, was, according to the Annals of the Four Masters, Abbot of Clones, and died in the year 1353. He is properly called in that inscription *comorbamus*, or successor of Tighernach, who was the first Abbot and Bishop of the Church of Clones, to which place, after the death of St. MacCarthen in the year 506, he removed the see of Clogher, having erected a new church, which he dedicated to the Apostles Peter and Paul. St. Tighernach, according to all our ancient authorities, died in the year 548. The bottom, or back, of the case is ornamented with a large cross, on which there is an inscription in the Gothic or black letter. This inscription is of a later age than those already noticed, but,” added Dr. Petrie, “I am unable, from its injured state, to decipher it wholly. It concludes with the word ‘*clachpar*,’ the name of the see to which the reliquary originally appertained.”

With the object of preventing this ancient monument from passing out of Ireland, the late Hon. Henry Westenra, afterwards Baron Rossmore, became its purchaser, in 1838, at a cost of £300. The Domnach Airgid was subsequently transferred by him to the Royal Irish Academy, in whose Museum it is now preserved.

II.—ANCIENT LATIN VERSION OF THE GOSPELS:—Portions of this manuscript have been lost, and the remainder has suffered much from decay. It is preserved unbound in a case and classed A. 4. 15. in the Library of Trinity College, Dublin. In a local inventory compiled about A.D. 1750, it is described as follows:—“Testamentum Novum Latine vetustissimum exemplar Hibernico caractere exaratum. Shedæ membranaceæ præ vetustate et incuria pœne assumptæ sunt.”

The sequence of the Evangelists is Matthew, John, Luke, Mark—corresponding with that in the Græco-Latin codex, written early in the sixth century, and presented to the University of Cambridge by Theodore Beza. The Gospel according to St. John is followed by a page of explanation of Hebrew names in four columns. An ornamental cross, with A and Ω at either side, is figured at the end of the Gospel according to St. Luke. The manuscript contains some interlineations in small Irish characters, faded rubric headings, and entries in the hand of Usher, the learned Primate of Ireland from 1624 to 1655.

From the examination by Professor William Stuhls and the late A. W. Haddan of readings of Latin versions of Scripture peculiar to early British or Irish writers, it would appear that while the Vulgate was known and used when Britain and South Europe were in full intercourse, it may be questionable whether it was known in Ireland towards the close of the fifth century, when such intercourse was impeded. About a century later, the Vulgate, resembling in text the Codex “Amiatinus,” had penetrated into Britain, but the old Latin previously in use still held its ground. A gradually increased use of the Vulgate may be traced in Ireland in the seventh and eighth centuries, till the old Latin disappeared. A presumption also exists in favour of the existence of a special British and Irish revision of the old Latin as the version thus gradually superseded. Latin

Biblical manuscripts of early Irish origin are in general characterized by orthographical peculiarities.

III., IV.—THE PSALTER STYLED CATHACH. This is a fragment of a Latin Psalter on vellum, ascribed to the hand of St. Columba, or Colum Cille, and preserved in an antique metal casket known by the Irish name of CATHACH, or “Fighter.”

Columba, born in Donegal, about A.D. 521, was a member of the reigning families of Ireland and British Dalriada; and is represented to have resigned his hereditary claim on the Irish monarchy with the object of devoting himself to a religious life. While sojourning with St. Finnen, in Ulster, Columba, according to an ancient legend, borrowed his psalter, and copied it furtively in his church, with the aid of miraculous light in the night time. Finnen demanded the copy, but Columba refused to surrender it, and the matter was submitted to Dairmaid, Monarch of Ireland, at Tara. Dairmaid decided that as every cow belongs to her calf, so to every book belongs its copy. Columba declared the decision to be unjust, and retained the copy. This dispute is represented to have led to a sanguinary battle, and to have been one of the causes which induced Columba to withdraw in A.D. 563 from Ireland to Iona. That island, subsequently known as Hy-Columcille, became, through the influence of himself and his successors in the abbatical see, the centre of Christian civilization in the north of Britain,\* and the chosen burial-place of the kings of Pictland and Scotland. Thus Shakespear tells us that King Duncan’s body was

“Carried to Colmekill,  
The sacred store-house of his predecessors,  
And guardian of their bones.”

In his “History of Scotland,” Mr. I. H. Burton observes:—“Not only do we find St. Columba’s own name obtaining an influence so prevalent in Scotland as to outlive the Reformation and all other ecclesiastical revolutions, but many other Irishmen, who were either followers or fellow-labourers of his, have obtained a permanent hold on Scottish local nomenclature and tradition.”

Among the Irish, Columba was universally known as Colum Cill, or Colum of the Churches, and he is commemorated, as one of the three patron saints of Ireland, on the 9th of June, the anniversary of his death.

The copy of the psalter known by the name of CATHACH, from the Irish *cath*, a battle, was preserved with veneration among Columba’s kindred, the O’Donnells, who ruled in the most western part of the north of Ireland, styled Tir Conaill, or the land of Conall, from their progenitor of that name, and now known as Donegal. The hereditary custodians of the CATHACH were the MacRobartaighs, who owned the lands in Donegal, which are still named from them Ballymagorrtory.

The present casket or *cumdach* of the CATHACH was made by direction of Cathbarr O’Donnel, head of the clan, towards the close of the eleventh century. The circumstance is recorded in Irish, still partly legible on three sides of the margin of the under silver plate of the casket, as follows:—

OROI DO CATHBARR UA DOMHAU LAS 1  
NDERNAD IN CATHACH [SA]  
7 DO SICTRIUC ZHAC ZHIC AEDA DO KISNE  
7 DO DOMHAU ZHAC ROBA  
KZHS DO COMARBZ CENANSZ LAS  
1 NDERNAD.

In English, as follows:—

“Pray for Cathbarr O’Donnel, for whom this casket was made; and for Sitric, son of Mac Aedha, who made it; and for Donal Mac Robartaigh, successor (of St. Columba, as abbot) of Kells, at whose house it was made.”

The bearing of the CATHACH on the breast of a sinless cleric thrice round the troops of the O’Donnells, before battle, would, it was thought, insure victory to them in any just cause. The Irish annalists record that in an engagement between the O’Donnells and MacDermotts, in 1497, the CATHACH was taken from the former, and its custodian, MacRobartaigh, slain, but that it was regained two years subsequently.

To open the CATHACH was deemed unlawful, and would, it was thought, be followed by deaths and disasters among the O’Donnells. St. Cailin of Fenagh is represented as admonishing the latter to look well that the CATHACH should not come into the hands of foreigners, for, if so, it would be to the overthrow and confusion of the O’Donnel tribe, and to the great honour of the strangers.

\* “Amid the darkness which enshrouds those missionaries who imparted to the heathen tribes of Alba [Scotland] the blessings of the Christian faith, the form of St. Columba stands out with exceptional clearness of outline; and the popular instinct has not erred which ascribes to him the largest share in the great work, and traces to his mission the most enduring results.”—“The Book of Deer,” edited for the Spalding Club by John Stuart, LL.D. Edinburgh: 1869, 1.

The Donegal Annalists record that MacRobartaigh, “who had the custody of the Cathach of Colum Cille,” was amongst those who fell in an engagement between Aed O’Donnell’s cavalry and the van of the horse-host of Shane O’Neill in 1567.

The CATHACH subsequently came into the possession of Daniel O’Donnell, a direct descendant of Aed, brother of Munnus O’Donnell, Chief of Tir Connell, for whom a biography of St. Columba had been compiled early in the sixteenth century.

Daniel O’Donnell raised a regiment in Ireland for James II. Adhering to his cause, he entered service in France, after the Treaty of Limerick, and was engaged in several of the important military operations of his time, including the battles at Luzzara, Cassano, Turin, Oudenarde, and Malplaquet. The rank of Brigadier in the French service was conferred on Daniel O’Donnell in 1719. He repaired the casket of the CATHACH, and provided a frame-case for it, engraved with the O’Donnell arms, and the following inscription:—

“IACOBO 3 M[AGN]E [BRITANNIE] REGE EXULANTE,  
DANIEL O'DONEL IN XTIANISS[IMO] IMP[ER]O P[RE]FECTUS  
REI BELLICÆ HUIUSCE H[EREDITARI] S[AN]CTI COLUMBANI  
PIGNORIS VULGO CAH DICTI TEGMEN ARGENTUM VETUSTATE  
CONSUMPTUM RESTAURAVIT ANNO SALUTIS 1723.”

Brigadier O’Donnell died without issue in 1735, and the Cathach remained on the Continent till transferred in 1802 to Sir Neal O’Donnell, Baronet, of Newport, in the county of Mayo. His relict, Mary O’Donnell, commenced proceedings in Chancery in 1814 against Sir William Betham, Ulster King of Arms, for having, as she alleged, opened the Cathach without permission. The contents, according to Betham, were found to be a wooden box, very much decayed, enclosing portion of a vellum manuscript of the Psalms, in connection with which he gave the following details:—

“It appeared to have been originally stitched together, but the sewing had almost entirely disappeared. On one side was a thin piece of board covered with red leather, very like that with which Eastern MSS. are bound. It was so much injured by damp as to appear almost a solid mass; by steeping it in cold water, I was enabled to separate the membranes from each other, and by pressing each separately between blotting paper, and frequently renewing the operation, at length succeeded in restoring what was not actually decayed to a legible state. . . . From the depth of the wooden box, there is no doubt that it once contained the whole psalter.”

The manuscript now consists of fifty-eight leaves of vellum, many of which at the commencement are damaged at head and foot. For some years past it, together with its casket, has been deposited in the Museum of the Royal Irish Academy, Dublin, by its owner, Sir Richard O’Donnell, Bart.

(To be continued.)

## ADULTERATION OF FOOD AND DRINK.

OUR City Analyst, Dr. Cameron, in his evidence before the Select Committee of the House of Commons appointed to consider the Adulteration Bill, made some important statements which deserve attention. In an examination extending to four hours, his evidence showed how far, in his opinion, adulteration prevails in Ireland, and that adulterated articles are imported into this country from England. On the subject of adulterated and newly-made whiskey his statements are particularly worthy of notice. He said:—

The Act of 1860 has totally stopped the adulteration of bread in Dublin, it having existed to an unlimited extent, and it very much improved the quality of milk, which previously contained about 150 per cent. of water. The Act of 1872 was a great improvement on the Act of 1860, but was very far from perfect. Still there was the greatest difficulty in getting samples, and when a man, suspected of being an inspector, asked for a pint of milk the vendor invariably gave him cream. When he wanted cream he usually sent an inspector to buy milk. In Dublin they had to get either an old woman, or a labourer with his coat across his arm, to buy the milk. The practice of adulteration was neither extensive nor general in Ireland. He had examined large quantities of whiskey, both that manufactured in Ireland and sent from Glasgow, and had found it unadulterated, although the prevalent idea was that it was adulterated with bluestone, oil of vitriol, or copperas. A great deal of whiskey was sold immediately after being made, and it then contained anylic alcohol, which was worse than any adulteration. It was so fiery that



it bore a large dilution of water. When people drank the new whiskey, containing the fusel oil, the effects were maddening; and he would suggest that whiskey should not be allowed out of the bonded stores in Dublin until it was at least one year old. It was his deliberate opinion that it was new whiskey instead of adulterated whiskey which did the harm; and, again, he said it should not be allowed to be sold under the age of one year. Several thousand pounds of tea had been condemned in Dublin, and he believed it arrived in that state in the United Kingdom. He did not like to say anything as to this side of the Channel, but he was confident no one adulterated tea in Ireland. He had a conviction respecting coffee, which was not coffee at all, the article being composed of burnt biscuit, some cocoa, and 30 per cent. of sand. He also had a man convicted for selling essence of coffee in which there was no coffee whatever. Tea should be examined in bond, to have the Chinese adulteration detected. He did not think the quantity of starch used in a cup of cocoa could be injurious. Many children could digest corn flour who could not digest plain wheat flour. It would be very desirable to have a central tribunal to settle disputed analyses. He had found drugs adulterated, especially scammony, but he believed they had been sent over by large wholesale houses in England. Adulteration was not practised in Ireland with respect to ardent spirits or porter.

The Chairman—I ask you again, are you of opinion it is the newness of the spirit rather than the adulteration that is the objectionable feature?

Dr. Cameron—That is my deliberate opinion, having had great experience in the examination of spirits, both in Ireland and Scotland; and it is most desirable that the sale of new whiskey should be controlled. However, when you give the poorer classes mellowed old whiskey they don't like it, as they say it has not a "bite." As to corn flour, 2½ lbs. of it were equal to 1 lb. of fat; and while he agreed with Dr. Bartlett that if a person were to feed on it altogether he would die of starvation, he might say so it would be if a person lived altogether on beef-teen, or fat, or bread, he would die of starvation, while, if he fed upon oatmeal and water alone, he might live. He had never found butter in Ireland adulterated with fat, lard, or dripping, and he did not believe that was done in Ireland at all.

We differ with Dr. Cameron in opinion when he says adulteration is not practised in this country in the matter of ardent spirits or porter. We have known publicans who often doctored their whiskey and porter with something more injurious than pure water. Carbonate of soda and salt we have often known to be put into porter that had become stale, and salt has often been put into fresh porter by low and rascally publicans and beer-sellers, to increase the thirst of the drinkers, so that they would drink more. The prevalent idea that whiskey was adulterated with bluestone, oil of vitriol, or copperas, is well founded, although those practices are not resorted to in Dublin so much as formerly. In the low shebeen houses of Glasgow, adulteration of spirits exists to a large extent, and in the same class of houses in this country also. In many a wayside inn where "entertainment for man and beast" is exhibited on the signboard, beastly and perilous stuff of the spirituous kind may be purchased still. We agree, however, with Dr. Cameron in opinion as to new whiskey, which is sold often in this city immediately after being manufactured. Newly-made whiskey should not be permitted to come into the market at least for a year after being made. It is dealt in largely by unprincipled publicans, because it bears any amount of dilution with water. When nearly a third of water has been added it is "cut-throat" still, and has truly the "bite" spoken of.

Tea is not adulterated much in this country, as it can be purchased in that state from across Channel at a figure to please the vendors. But another system exists in our midst. The mixing system is carried on to a large extent. Sundry kinds of teas are imported, and the weak mixed with the middling, green with black, and sometimes exhausted leaves which have been dried up anew are used for "our choice mixture."

As Dr. Cameron has alluded to Dr. Bartlett in the matter of corn flour, we shall annex here the deliberate opinions of

that authority, arrived at after repeated analyses:—

My first assertion is that these corn flours are starch, and nothing but starch. This is the result of many and most careful analyses, upon which I stake my professional reputation as a chemist. One of these corn flours, as I stated to the select committee, is rice-starch, being exactly the same as the laundry article in a state of powder, less the blue.

I will go one stage further, and prove that starch by itself, in the absence of other food, will not support life. I beg to refer you to the minutes of the evidence respecting the death of a child at the Roman Catholic Home for Neglected Children at Manchester. This occurred in the April of last year. It was satisfactorily proved that all the children had been fed upon corn flour and arrow-root, yet Mr. C. O. Murphy, the surgeon who examined the dead child, deposed that "the body appeared in an exceptionally aggravated state of emaciation—in fact, nothing but skin and bone. The other children were found to be in a very bad condition, suffering, among other ailments, from ulceration of the corner of the eyes." This is one of the invariable symptoms of slow starvation from deprivation of the nitrogenous, flesh-forming constituents of food. Experiments undertaken by Majendie, Drs. Fick, Wislicenus, Lyon Playfair, Edward Smith, and myself demonstrate that the proteinaceous flesh-formers are alone equal to furnishing all the wants of the body, the fatty, saccharine, and starchy compounds could, therefore, be omitted without injury. But, to utilise to the best advantage the protein of the food, these carbonaceous principles should be present in their proper proportions. Starch, in particular, must be regarded chiefly as an economical diluent of richer food. Now, I am prepared to admit that a diet consisting mainly of starch, as long as it is mixed with even a very small quantity of flesh-former, may sustain life in a quiescent state—may, perhaps, be particularly well adapted for the nutrition of adults in certain stages of disease. But under no circumstances ought starch to be administered to young infants. I appeal for confirmation to Drs. Letheby, Carpenter, Lankester, and to all others who have devoted a special attention to the subject.

My complaint against the "corn flours" is that they pretend to be specially adapted for infants' food. The British corn flour is put forward for this purpose, and is stated to make for children "most nutritious and economical food." Maizena exhibits on the wrapper these pretensions—"As food for children and invalids, it is not only unequalled, but wonderful—as delicious as it is life-saving—its bone, muscle, and strength-giving qualities every mother will appreciate—it may be used simply boiled with milk or water, as fauced. Manufactured expressly for food from the choicest maize, composed of the finest parts of the best maize." Against these statements, I maintain that the very nature of the preparation of corn flour is to practically get rid of almost every atom of flesh-and-bone-forming constituents; hence the liability to fatal error. Bone cannot be built up unless a due proportion of the mineral salts is comprised in the food, nor can flesh be sustained and renewed unless some proteinaceous compounds are present. I assert again, as I have frequently publicly asserted, there is an almost total want of these absolutely essential principles in corn flour.

We believe a further investigation will convince our worthy City Analyst that our vendors are not so free from taint as he would fain believe. In the matter of milk adulteration in Dublin, he has of late been afforded ample evidence of its nature and extent, and if he has failed to find that butter in Ireland is not adulterated, he has been more happy in his travels and tours of inspection, and at his breakfast table, than we have. Re-made and coloured butter in this city and throughout Ireland is common enough, and a more than necessary quantity of water and salt is a common occurrence in butter sold in Dublin and elsewhere. We have also met with instances of fat or dripping in butter sold in huxters' shops in this city.

In the matter of bread, adulteration has greatly decreased, but we remember when it existed in our midst to a very great extent. Although the Act of 1860 stopped generally the adulteration of bread, most inferior flour continued to be used, and alum to give it a whitened appearance in the loaf. From laxity of the Mayoralty duties and neglect of regular inspection, light weight and short

measure in food and drink extensively prevailed at times, and prevail still. The poor of Dublin are poisoned and plundered still in the matter of food and drink, from the want of constant and efficient sanitary inspection.

## THE IRISH VICEROY AND THE IRISH ARCHITECTS.

On the 2nd inst., a deputation of the Institute waited upon the Lord Lieutenant at the Viceregal Lodge, for the purpose of presenting a congratulatory address. The deputation was composed of the following gentlemen:—J. H. Owen, M.A., President; Sandham Symes, V.P.; E. H. Carson, M.R.I.A.; W. Hague, F. Franklin, W. M. Mitchell, Charles Geoghegan, W. Stirling, James Bell, C.E.; J. J. O'Callaghan, G. C. Henderson, Hon. Sec.; and C. H. Brien, Assist. Sec. His Grace, who received the deputation in the drawing-room, was accompanied by the Hon. Mr. Dillon, Private Secretary, and Capt. Rose, A.D.C. We do not wish to be too captious, but we do think there are a few odd sentences in the address of the President; and that if it had been re-cast before it had been read, considerable improvement might have been effected:—

*"To his Grace, James, Duke of Abercorn, K.G., Lieutenant-General and General Governor of Ireland."*

"We, the President and Council of the Royal Institute of the Architects of Ireland, humbly present our congratulations to your Grace on this your second appointment to the high and dignified office with which it has pleased her most gracious Majesty to entrust you, to the discharge of the duties of which your public career hitherto gives assurances that you will bring zeal and devotion, and your long hereditary connexion with the country must supply intelligent comprehension of, and active sympathy with the difficulties, objects, and aims of Irish life. The art which we exercise is, at once, the offspring and chronicle of domestic peace and prosperity. It attends, in a rudimentary form, on the first steps of civilisation, develops with its growth, and is in its progress a sure index at all times of the condition of material prosperity of the land in which it is found, and remains not unfrequently the sole witness to after ages of a civilisation that has utterly passed away. This testimony is the more to be relied on, as it is made up of the unconscious contributions of too many individuals in too many districts, and all acting on motives that have respect to themselves only, to admit of any possibility of co-operation or concert; and this testimony is most precise and unequivocal as to the social progress of this country at present—as measured by the increase of the number and quality of buildings of all descriptions. So that, judging by the amount of money available for permanent investment in building, and the greatly increased demand for the introduction of purer art and higher technical skill into their construction, the present must be considered to be a time of prosperity to Ireland without example, and only to be surpassed, as we hope, by the future, over which we trust the changes and chances of the political world may leave your Excellency long to preside. In conclusion, we have to request your Grace to honour us by again becoming Vice-Patron of the Royal Institute, her most gracious Majesty the Queen being its Patroness."

*"JAMES H. OWEN, President."*

*"GEO. C. HENDERSON, Hon. Sec."*

His Grace replied as follows:—

"GENTLEMEN,—I thank you very sincerely for the congratulations with which you have greeted me, on my resumption of the office of Lord Lieutenant. It is most satisfactory to find that the manner in which I was formerly enabled to discharge its duties has rendered my return to Ireland acceptable to you. It affords me much pleasure to receive from you so gratifying an account of the condition and progress of architecture in this country. Being, as it is, one of the most essential arts to the well-being, and even existence of society, it is most important to note the advance which it makes, and which, as you truly remark, affords a most trustworthy indication of the growing prosperity of Ireland. It rests with you, gentlemen, to carry into effect the desire which continually manifests itself more strongly for material improvement in buildings, and for a high and refined form of art; and I feel well assured, from the many indications of your ability and diligence which we see daily rising among us, that the



public will have no reason for being disappointed in the confidence which they repose in you. I have great pleasure in accepting the office of Vice-Patron of your association."

The members of the deputation, having been introduced to his Grace, then withdrew.

With her Majesty as Patroness, and the Viceroy as Vice-Patron, let us hope that the council will afford the country fuller evidence of an active life in its own interest, and of the art it was embodied to represent.

### ROYAL EXCHANGE, MANCHESTER.

Our contemporary, the *British Architect*, in describing the interior of this building, says:—"An extensive use of natural material has been made in this building. The columns and pilasters are of Cork marble, the former being 3 ft. 2 in. in diameter and 33 ft. high, with electro-bronzed bases and bronzed caps. They stand on dark green Irish marble plinths. The walls are covered with black and chocolate glazed tiling to the height of the plinths; the door jambs entering the room are red granite and marble; the doors and fittings throughout are oak and mahogany. The marble work has been supplied by Messrs. Sibthorpe and Son, Dublin."

### THE CITY FATHERS AND THE LIFFEY.

At a meeting of the Council to-day, Mr. Warren explained his (?) plan for getting rid of the Liffey nuisance. The estimated cost was £6,000, but a competent gentleman told him that, as no paving was necessary, the works could be carried out for £2,000! The Chairman of the Public Health Committee thought the sooner the plan was adopted the better for the citizens. Two obstacles stood in the way—one, the necessity of taking the opinion of the law agent as to the power of the Port and Docks Board; the other, the necessity of submitting the plan to the city engineer. If submitted to him, the result, no doubt, would be to shut up Mr. Warren. A great and magnificent project had been recommended for the main drainage of the city, which could not be carried out for less than a million of money!!

The matter of Mr. Warren's scheme was referred back to the Public Health Committee for further consideration during the "dog days." The special meetings should be held each day on the Metal Bridge, at dead low water!!!

### BRAY RATEPAYERS AND THE RATES.

The Local Government Board auditor sat in the Court-house to-day for the purpose of considering objections lodged by ratepayers to some items in the last account of the Town Commissioners. The auditor had before him a list of those objections. The first in importance was one to the payment of some £1,000 for the formation of the new Bray bridge and commons connecting road. The protest was made under a section of the Bray Special Act of 1866, which ruled that all works therein recited should be completed within six years. The auditor said that the objection appeared to be a very cogent one. The solicitors for the Commissioners urged that, owing to the enormous demands made for a time for the piece of land required for this road, a special Landed Estates Court arbitration had to be obtained in the matter. A special presentment was then brought before Judge Barry, in the Queen's Bench, and on the evidence of a deputation of the Bray Commissioners, and on the arguments of counsel, the presentment for the road was duly fiat. The solicitors also relied on certain claims in the Grand Jury Act for the carrying out of the work. After some conversation, the auditor stated his conviction that the six-year clause of the Act was clear and specific, and under that it would be his duty to disallow the bridge road payments,

and surcharge the gentlemen with the costs who had signed the cheques. He, however, considered the case a hard one. The work was a most useful one, and no jobbing had entered into the matter. Under these circumstances he would take the unusual course of specially consulting the Local Government Commissioners before proceeding to enforce the surcharge. The next item of importance on the list of objections was a protest against the payment of some £35 a-year for the services of the county surveyor and his assistants, levied by the Wicklow Grand Jury on the Bray township rates, under the head of county-at-large charges. It appeared that the surveyor was paid a special salary by the Bray Commissioners; therefore his services should not be twice paid for. Mr. O'Brien showed that the county of Dublin Grand Jury made no corresponding charge for the portion of the township within their general charges. The auditor intimated that he would disallow the charge of £35 a-year for the county surveyor's services. The auditor subsequently intimated that he would report on the subjects specially brought forward to the committee of ratepayers constituted in the matter.

### A NATIONAL MUSEUM FOR IRELAND.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I have seen with pleasure the effort Sir Arthur Guinness has made to attract the serious attention of Government to the formation of a sister institution in this country to South Kensington Museum. It is a want not only felt by the public at large, but more particularly by professional men following artistic pursuits, and workmen who have the desire and natural ability to perfect themselves in their various occupations. From long experience, I have no hesitation in stating that this country has the elements of producing first-class workers in every branch, both mechanical and artistic. I have employed carvers, both in wood and stone, carpenters, modellers, stone cutters, and smiths, all of whom are capable of doing anything if properly taught. The teaching they require can only be given by placing objects before them calculated to refine the taste and educate the eye. We have enough of the raw material: the thing is how to use it. Show a tradesman the best example of his work, and he will try to emulate it. This such a museum as is proposed will do. Architects sadly feel the want of such an institution; with their pupils, they are wholly thrown upon their own teaching, having no examples to point to, nowhere to recommend a young man to read and study. I earnestly hope that the ideas of the public will not be too gigantic. A small central museum, well and carefully filled, will be much better than long galleries, which, in the effort to stock, will become receptacles for objects wholly unfit to occupy them, or be sad examples of "rari nantes in gurgite vasto."

T. N. DEANE, R.H.A.

### TENDERS.

For the Mulholland Memorial Church, Eglantine, County Down. Thomas Drew, R.H.A., F.R.I.B.A., architect:—

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### TO CORRESPONDENTS.

"BRIEF SKETCHES OF BOONESTOWN AND DONNYBROOK" &c.—A notice of the fourth and concluding part of the Rev. Beaver H. Blacker's work is held over until our next issue. A perusal of this very interesting volume has suggested many thoughts, and brought back to our mind incidents worth re-touching, in the service of the volume in question, and for other useful ends and purposes.

IVEAGH (Newry).—Thanks. Perhaps in next issue we might make use of it.

NEWGATE.—The old prison in Green-street was built from the design of Thomas Cooley, the architect of the Royal Exchange, yelet City Hall. Its foundation was laid in 1773, and was opened for the reception of criminals in 1781. The first stone of the sessions house was laid in 1792. In the Recorder's Court of this building were held all the state trials of 1798 and 1802; and the more recent ones.

ARCHITECT (London).—Will direct our attention to the matter.

SANITARY.—The Public Health Bill now before Parliament does not take cognizance of matter alluded to. Possibly in committee the omissions will be supplied in the interest of the gentlemen in question.

T. F. (Darwen).—Thanks for the paper containing report of exhibition. Several articles and notices intended for this issue are unavoidably held over.

### SANITARY AND OTHER NOTES.

THE Municipal Council have been actively engaged for several days in canvassing sanitary matters, and powers and privileges contingent; but *bona fide* sanitary work, to secure the health of the city, is nowhere to be seen. The new Public Health Bill and the Kingstown Extension Bill are causing some irritation, which is easily accounted for; so deputations to the Local Government Board, and motions and remonstrances, are the order of the day upon Cork Hill. Sir James Mackey in the Corporation proposed that the Waterworks Committee be directed to lodge a petition against the bill, and to take the requisite steps to secure a *locus standi* before the committee of the House of Commons. Of course this meant opposition and the usual law expenses; and, after a long discussion, the motion was carried, but with the proviso that no further expense should be incurred without the order of the House. There was no necessity for such a motion at all, and, instead of leading to the protection of the ratepayers, the opposition of the Corporation would lead to putting the city to more cost.

NEWRY.—At a meeting of the Commissioners, the matter of a defective water pipe at Godfrey Bridge, led to a long discussion. A report of the Town Surveyor upon the subject was read. Mr. O'Hagan said that the Town Surveyor had informed him that, when the pipe was examined it was found to be an inch and a-half in thickness at one side, and only three-eighths at the other. There was no jury, remarked Mr. O'Hagan, would say that that was a proper way to execute a contract. Here was a work that had cost the town a sum of over £374, or nearly three times the amount of the original contract. They, as Commissioners, owed, he thought, a duty to themselves and the ratepayers, and they should perform that duty without either fear, favour, or affection. A motion was eventually carried, calling upon the contractor to replace the casting, and pay the cost of lifting the old pipe out of the canal.

At a subsequent meeting, the contractor's reply was read, by which it appeared he refused to replace the pipe that proved defective, as, by the terms of his tender in 1872, the onus did not rest upon him to do the work now required by the Commissioners. After a wrangling and not very edifying discussion, it was ultimately agreed, on the motion of Mr. O'Hagan, that the engineer be instructed to replace the defective pipe by a new one, the question of cost to be considered when the work is completed.

ARMAGH.—A correspondent of the local *Guardian* draws attention to certain "plague spots" in this town. He says truly:—"It should be the duty of the Town Commissioners and Sanitary Committee to see that there exists nothing in the shape of nuisance, whereby the public health is endangered. That such *does* exist is very well known to those who have the power to remove all stench depôts. In certain localities there may continually be *felt* the nuisance and horrid stench or odour proceeding from cesspools, or the removal of manure, mixed with filthy matter. . . . In Chapel-lane and Linenhall-street, for instance, there are several houses without yards or other accommodation. Will those to whom the people have entrusted the management of these matters do nothing? The evil need not be removed by individual effort, but the Town Commissioners as a body should take up the case before the town is scourged with fever or some other pestilence. They will, by doing so, have the plaudits of both rich and poor, with the unanimous sympathy of the people of this yet generally clean and healthy city." [We hope the "rap" bestowed by "Cleanliness" will have some effect.]



**KINGSTOWN.**—The Commissioners seem to be falling into the same bad habit that distinguishes the Dublin Town Council. Meetings are called, but are not attended, and so business gets into arrears and neglected. Dissatisfaction is felt, it is said, at the action of a few members of the board allocating the sum of £250 in support of the new Boundaries Bill, and also as to the disposal of the Town Hall property for the purpose of an hospital.

**BRAY.**—The ratepayers of the township are waking up, and in public meeting assembled are calling upon the Government Auditor to surcharge the sum of £1,000 outlay sanctioned by the board. There are several matters in Bray that need careful investigation; and in Blackrock there is need also for a scrutiny into the general and miscellaneous outlay of the public funds.

### MORE ALLEGED GAS-METER FRAUDS.

The following appeared in the *Builder* of the 6th inst.:—"The Lighting Committee of the Acerrington Local Board have met in the Court-room of the Peel Institution, to investigate an alleged fraud perpetrated on the local board by the gas company, according to the *Liverpool Journal*, which states that the clerk to the board read copies of letters which he had addressed to Mr. W. Barratt, the gas company's manager, in which he gave particulars of the charges which the board's lighting inspector had made against him, and which details were intended to show that the meters had been altered so as to represent 80,000 cubic feet of gas which had never gone through the public lamps. The clerk had received a letter from Mr. G. W. Barlow, solicitor, announcing that the gas company will take proceedings 'with respect to the serious and unfounded charges made against the company and its manager.' Mr. John Boothman, who had made the charge, said he was prepared to prove the charges again, and not only them, but many more. The chairman said he thought the committee should refer the report to the board, and let them deal with it as they thought proper, which the committee agreed to.

### HOME AND FOREIGN NOTES.

**LEGAL PROCEEDINGS.**—At the instance of Richard Hassard, Civil Engineer, Westminster Chambers, London, a writ of summons and plaint has been issued against the Commissioners of the Township of Kingstown. If Kingstown has not got a sewerage scheme to please her, she is likely to experience a few more *drainage* experiments.

**THE LATE MR. SMYTH, LAW AGENT.**—At the advanced age of 80, Mr. John Smyth has passed away, his death having taken place at his residence, North Great George's-street. By his death a valuable bit of patronage is placed at the disposal of the Corporation, but we are not sanguine that a wise disposition will characterise our Town Council. Already there are a number of "Richmonds" in the field, and rumour says that one gentleman is "cocksure" of the appointment, on the faith of pledges that are likely to be redeemed in this case.

Parts of Great Cumberland-place and Oxford-street, near the Marble Arch, London, are now being subjected to a new system of watering by means of pipes, invented by Messrs. Brown, British River Irrigation Office, Edinburgh. The trial shows that the method is calculated to lay the dust perfectly with great economy of water, a remarkable saving in labour as compared with the water-cart system, and also with a saving in the wear of the road, both on granite and hard-faced macadamised street. With the pipe system the whole surface can be washed; or, for the purpose of laying dust only, a narrow strip next to each curb is watered in a few seconds. This arrests the whole of the deposits of dust, preventing them from rising in clouds; and the road being left for the most part dry, obviates both the creation of dust and the excessive wear of pavement occasioned by the common mode of watering twice every day.—*Garden.*

**THE DRAINAGE OF BRIGHTON.**—The mayor, aldermen, and town councillors of Brighton, the chairman and members of the incorporate district of Hove, and the members of the Brighton Sewers Board, have made a visit of inspection to the great intercepting sewer designed by Sir John Hawkshaw, which will convey all the drainage of Brighton, Hove, and Preston parishes to a point of discharge nine miles eastward from the new West Brighton Estate, and seven miles eastward from the eastern intercepting inlet, where the bulk of the Brighton sewage will be admitted. The work is about to come into actual use. The western end of the sewer, from East Hove to the centre of Brighton, is 5 ft., and the rest, a length of seven miles, is 7 ft. in diameter. About a mile of this latter portion, from the Chain Pier to beyond Kemp Town, had been illuminated with candles, and the visitors, numbering between sixty and seventy, walked through it. From Kemp Town the party rode to Portobello, where they descended from the level of the roadway to the penstock chamber—an immense excavation of nearly 120 ft. in depth, lined with thick brickwork, and having granite and concrete foundations on the tidal level, where the outfall chambers are built. Going along an adit on to the beach, the visitors inspected the actual outfall—an arrangement of pipes issuing from large bell-mouthed constructions, the entire structure being fixed in strong timber framework, covered with masonry and concrete. The party

then ascended again to the cliff level, when refreshments were served, and congratulatory speeches made. The cost of the whole system of drainage for Brighton will probably be from £150,000 to £200,000.—*Builder.*

### NOTICE.

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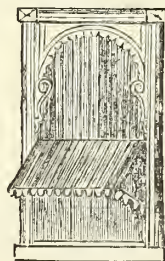
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# The Irish Builder.

VOL. XVI.—No. 349.

*Building and Sanitary Improvements.*



**M**ORE than ordinary interest has been manifested by the building community in London in the passage of the Metropolitan Buildings and Management Bill. When first introduced, it very naturally provoked much discussion and some angry feeling. Its clauses were analysed and digested by professional men, and its defects pointed out. Owing to the representations of district surveyors and members of the architectural profession, considerable emendations have taken place in the Bill. In the evidence elicited before the Select Committee of the House of Commons many suggestions were made, and information of a useful and important character made available to the public.

Although the Bill is being passed for the benefit of the English metropolis, yet in all its essential features it is one that must be applied at no distant date to this city and other cities throughout the three kingdoms. The game of unprincipled speculating builders will soon be played out in London, if the provisions of the Bill are rigidly enforced, and a healthy home will be made possible.

In the evidence of Sir Joseph Bazalgette, the engineer of the Metropolitan Board, the witness spoke strongly in favour of concrete, from his experience of its use in the different embankment works on the Thames. From a sanitary point of view, he considered that dwellings should always have a damping course; and that it was desirable that the ground surface or site of every dwelling-house, where not flagged over, should be covered with good concrete, not less than 6 in. in thickness. This last matter is a wholesome provision in the Bill alluded to.

Mr. Henry Hart, Mr. Frederick William Porter, Mr. Henry John Hanson, and Mr. Alexander Peebles, architects and district surveyors, spoke strongly in favour of the Bill, and each agreed that there was a necessity for an amended Building Act; and that it was advisable to alter the position of the district surveyors, both as regarded proceedings for offences under the Building Act, and also as regarded the payment of surveyors, one witness being in favour of the surveyors being paid by salary instead of by fees.

The most important evidence, however, in reference to building and sanitary requirements generally, was given by Mr. George Godwin, the editor of the *Builder*, who is also an architect and district surveyor. He considered it desirable and necessary in a Building Act for the metropolis to have better provisions than at present with regard to sanitary matters. He considered the Bill as a step in the right direction, but one that did not go far enough. He was in favour of a layer of concrete at the bottom of a building, and thought its provision an absolute necessity, as many houses are simply put on the ordinary soil, the good soil being taken

away and bad stuff put in its place. He indicated hundreds of houses built in and around London upon low-lying grounds—in several instances upon filled-up “shoots,” made up of all sorts of rubbish and even night-soil.

Mr. Godwin considered that 8 ft. should be the minimum height of a room for human habitation. Basements below such level that the level for draining at would be below the level of the crown of the sewer with which the drain would be connected, should not, in his opinion, be allowed. Basement rooms with a wooden floor, having a sufficient space between the ground and the floor surfaces (not less than 6 in.), to admit of ventilation by means of air bricks or otherwise, unless the ground is concreted over, was also pointed out as necessary, and even necessary where the ground is concreted over.

A supervision over the quality of building materials was earnestly recommended, to provide against a certain, and a very large class, too, of unscrupulous speculating builders, who cover the suburbs with any number of small, rotten houses.

More than one storey in a roof was considered an evil, not only as a matter of sanitary arrangement, but in view of the danger of fire. It was Mr. Godwin's strong and confirmed belief that the existence of rooms in the roofs of houses led to diseases to an enormous extent in London, being usually unventilated and very low. Servants and children being often put to sleep there, consumption has been known to result in hundreds of cases, the extremes being hot and cold according to the season, and impure air at all times.

During the course of his examination, Mr. Godwin alluded to several blots that appeared in the Bill, and suggested emendations which we hope will be embodied—one as regards the covering in of an area at the back of a house. The new Bill provides that there shall be an area of 150 ft., but, by the wording, that area might be covered by a building the whole height of the main building, provided only that it is lighted by a sky-light on top. The natural result would, of course, be the erection of a mass of back-to-back houses unfit for habitation, and without any open area. As Mr. Godwin observes, there might be a building put up three or four storeys, provided there was a sky-light on top of it, and in this flagrant evils would be perpetrated. The witness also objected to the exemption of water-closets attached to a house being permitted of wood, as it would be a most dangerous exemption. Though a builder would be prevented from putting in a wooden frame within four inches of the outside wall, he might put a wooden box 25 ft. in area against his back door. It was suggested that all buildings not exceeding in area 50 ft. ought not to be of wood. The width of streets at 40 ft. was approved of, but the height of buildings, witness considered, should be restricted.

In course of cross-examination, Mr. Godwin said that the limit proposed in the Bill as regards the size of manufactories and warehouses was most desirable. He should be unwilling to introduce exceptions in favour of any particular district, as legislation ought to be uniform and certain. 300,000 cubic feet were quite as much, he considered, as should be permitted. In respect to water, he thought it would be advisable to introduce a clause providing for

a supply of water for the extinction of fire in all large buildings; but, with all those provisions, he would not have the cubical contents of the building any larger. They could not trust to those provisions altogether, as they failed at the last moment. Here comes a sentence that is worthy of attention:—“*A good party-wall is worth all the fire engines in London.*”

On the whole, the evidence of architects, district surveyors, and medical officers of health who were examined previous and subsequent to Mr. Godwin, were in favour of the improvements he suggested. If the recommendations in respect to sanitary requirements are adopted, the Metropolitan Buildings and Management Bill may be pronounced a good one, and one that is calculated to have a marked effect on the health of the people in leading to the improvement of their homes and surroundings. It will also help to cut out a cancer from the building trade which is not only disgracing London, but leading to demoralization of the minds and bodies of a great number of those connected with the practice of art and handicraft in Great Britain and Ireland.

## THE CONFERENCE OF BRITISH ARCHITECTS.

THE concluding meeting of the Institute took place on the 15th ult., forming the opening of the third general Conference, the Vice-President, Mr. Gibson, occupying the chair, in the unavoidable absence of Sir Gilbert Scott. Several important matters injuriously affecting the profession were discussed and considered, both by the chairman and subsequent speakers.

Professor Kerr contributed a paper, which dealt with the difficulties of architectural practice arising from various demands. A discussion thereon ensued, opened by Sir Digby Wyatt, and was followed by Mr. Atkins, representative of the Institute of Ireland, who, in the course of his remarks, stated that the terms of “architect,” “engineer,” and “surveyor” were all but synonymous in this country. Mr. T'Anson alluded to the two invasions of the architect's province in *re* engineering and decorating, and was of opinion that it evidenced the activity of the age, and the position brought about in consequence must be accepted. Mr. Dawson concurred. Mr. Parslow, of the Liverpool Architectural Society, spoke as to the want of a definite system of architectural instruction for young architects.

Mr. Hornblower referred to certain charges brought against architects for allowing bad work, and laid the blame on contractors and dishonest workmen. Mr. Burges, in answer to a call from the chair, briefly stated his opinion—that it was impossible for one man to be both an architectural artist and a practical builder. To this we reply that it is not impossible. Some men have been both, and men to come can be, though of course it is impossible that all will ever possess the requisite ability.

Mr. Charles Fowler, in proposing a vote of thanks for the paper, agreed with the previous speaker, and said that no man could master all the branches of the profession. Certainly not *all*. Mr. Morris followed up with some remarks upon painting, and the special and recognised ground occupied by some artists in different branches of the art. Mr. Sharpe seconded the vote of thanks, and



hoped the subject raised and discussed, which which was an important one, would be further discussed.

On Tuesday, the 16th, a visit was paid to the new Home and Colonial Offices, and the sectional meeting was held in the afternoon, at which a short paper was read by Professor Lewis "On Professional Education." Another short communication on the subject was read by the Secretary, from Mr. Arthur Hill, B.E. The Secretary also read a communication from Mr. Robins, of a similar nature. A discussion followed on Professor Lewis's paper, opened by Mr. Morris, who gave a sketch of his own experience of professional education twenty or thirty years ago. Mr. Tarver, President of the Architectural Association, gave expression to some admirable suggestions as helps to students in acquiring a knowledge of their profession, one of which was the visiting of works during progress. Mr. Nash and Mr. E. Hall followed, and Mr. Roger Smith thought that a good general education before going into an office very important, and a knowledge of drawing equally so. He coincided with Mr. Tarver's views, but would go further, and would say—"Send the youth for four years to the small office, and then let him go for one year to the big one, to complete his education." Mr. Spiers thought the present preliminary system very inefficient, and that examination could only be made nominally compulsory, but if the profession generally accepted it, the public would respect it. Professor Kerr was of opinion that there was quite enough of elementary education already, and that what was wanted was the higher education. Mr. Sharpe thought much more time and hard study were required to be really a good art architect. Mr. Watson followed him in reference to some remarks of Professor Kerr as to the examinations. He thought the present system of apprenticeship required to be altered in form and spirit, and that young architects should be distinctly *pupils* and not apprentices. After a few more words, in reply to Mr. Spiers as to whether students could make use of books in the Institute Library, which was answered in the affirmative by Mr. Eastlake, and some words from Mr. Lewis, the meeting adjourned.

On Wednesday, the 17th, a visit was paid to the Alexandra Palace by a number of gentlemen, who were shown over the building under the guidance of Mr. Lucas, the contractor. An excellent luncheon was provided for the visitors by Messrs. Kelk and Lucas, the contractors, and healths were proposed and drunk with the usual greetings.

At the afternoon meeting of the Architects, the chair was taken by Mr. Vulliamy, when a communication by Professor Kerr, dealing with the "Responsibility of Architects," was read and discussed. The paper and the discussion partook of a semi-private character, as it referred to matters that were the subject of a late law-suit, in which the interests of Professor Kerr had suffered, and, through him, the profession also.

At the close of the discussion a motion was made that a Committee of the Council of the Institute should be appointed to collect cases and precedents as to the responsibility of architects, and to report the matter at the next Conference.

On Thursday a visit was made to Northumberland House, Charing Cross, by a number of the members. This historic building will

shortly be removed for the opening of a new street to the Thames Embankment. The furniture and fittings of this splendid old town mansion of the Percys has already disappeared, so the architects assembled had not much to see save the bare walls. However, the place was a subject for reflection, and called forth remarks on the part of many present.

At the afternoon meeting a rather ambitious paper was read by Mr. Stevenson on "The Recent Reaction of Taste in English Architecture." The paper dealt with a fashion now prevalent of playing with the style of the architecture of the reign of Queen Anne, and Mr. Stevenson would seem, from his paper, to be a great advocate of this "Free Classic" style. The brickwork and joinery of the time of Queen Anne is in many respects worthy of imitation, as the workmanship was good; but the revival of the style *in globo*, internal and external, in house building would not do in these days. Professor Kerr opened the discussion on Mr. Stevenson's paper, but he did not think that what was termed the Queen Anne style would have any lasting hold upon us. He was not a partizan of Gothic; but really good Gothic was a thing that every one could admire and feel proud of, whereas "Queen Anne" was merely something new (rather something re-patched), and would, under present conditions of taste, have given place to the Japanese styles, if the Japanese had possessed any architectural style for us to adopt. He admitted one merit in the style—it was not barbarous, like much of the modern Gothic. This last remark of the Professor is quite correct. Mr. Waterhouse had listened to Mr. Stevenson's paper with interest and dread. Mr. Sharpe thought we should go into the larger question, looking beyond ourselves, and seeing and inquiring whether there was any such reaction of public taste in favour of the "new style" as was referred to in the paper. He considered our present Gothic was not as good as our old Gothic, and that there was much improvement required in our knowledge and study of detail; also a clearer study and devotion to one style, so as to thoroughly know and comprehend it.

Mr. Tarver spoke of Mediæval Gothic as a style admirably suited to the climate of England, and then went on to allude to the subsequent change in the habits of life of the people, which led to changes in the internal fittings of buildings and improvements. These changes, he considered, had exercised an influence upon the style of the architecture of the Jacobean and Queen Anne period. It was a style developed from within the building and eventually reaching and influencing the exterior design; and what was called the Queen Anne style was in fact a style based upon joinery. This view was partly correct, and one or two speakers who followed Mr. Tarver concurred with him.

Mr. Stevenson replied to the criticism on his paper, and defended his reactionary system, although he said he had no wish to be considered the prophet of the Queen Anne style.

Before the next discussion ensued, Mr. Hine gave expression to the opinion of the Architectural Alliance, and thought that there should be some steps taken, if possible, to draw closer the tie between the Institute and the country societies and provincial architects, and read the resolution of the Alliance upon

the subject. The chairman said the resolution would be duly considered.

A discussion then commenced on a paper read by Mr. Cates, being the report of the Committee of the Institute on the question of the employment of surveyors, and that of "quantities," and the responsibilities of architects in connection. Mr. Hall, Mr. Nash, Mr. Morris, Mr. Papworth, Mr. Chatfield Clarke, Mr. Waterhouse, and others, followed, giving expression to their views on this very vexed question.

Mr. Papworth proposed that the best thanks of the meeting be given to Messrs. Cates and Rickman for the trouble they had taken, that their report be received, and that the Council be requested to bring the matter before a meeting of a future Conference, when more information might be obtained on the subject. The motion was seconded by Mr. Clarke, and unanimously adopted. This brought the business of the Conference to a close.

The following gentlemen attended the Conference as delegates from various provincial societies:—Royal Institute of Architects of Ireland, Mr. William Atkins; the Glasgow Institute of Architects, Mr. J. Salmon; the London Architectural Association, Mr. E. J. Tarver; the Liverpool Architectural Society, Mr. W. Parslow; the Manchester Society of Architects, Mr. E. Salomons; the Nottingham Architectural Association, Mr. Robert Evans; and the Sheffield Architectural Society, Mr. J. D. Webster.

On the whole, the Conference cannot be pronounced successful, notwithstanding some interesting papers and some more rather amusing ones. Of practical results, the Conference will afford none. It is to be hoped, however, the Conference has promoted good feeling, and has drawn a little closer the bonds of fellowship and good will, which is greatly needed in London and throughout England generally between the members of the architectural profession.

#### THE MAIN DRAINAGE AND THE RIVER.

AFTER a series of most disgraceful scenes of opposition and counter opposition at meetings of the Town Council, a resolution was carried on Saturday last, by 22 votes against 17, to postpone all action upon the main drainage scheme until the Lord Lieutenant's plan for the purification of the river, or one consonant with it, is carried into effect. Several days have already been lost, and costs incurred on the head of consultations. The lawyer's opinion in this case might have been dispensed with, for there was no likelihood of the Port and Docks Board going to law with the Corporation for infringement of rights. As a sanitary authority, the Corporation have the right to keep the Liffey from being a foul ditch in the centre of the city, whether it arises through the action of the sewers or otherwise. In such a case, it is the duty of both boards to combine and waive privileges, if they exist. The legal impediments, if any, would be removed at once by the Irish Executive through the Government. This aside, the Local Government Board have full powers to compel the Corporation to cleanse the Liffey, and, if failing to do so, perform the work itself, and charge the costs to the municipal body, which would have to refund the outlay incurred.

Mr. Henry O'Neill, author of "The Sculptured Crosses of Ireland," &c., has issued the prospectus of "Pictorial Illustrations and Details of the Round Towers of Ireland." The work will be issued in parts at 10s. 6d. each, containing six plates each.



## PUBLIC RIGHTS AND PUBLIC NUISANCES.

## THE CONSTRUCTION AND REPAIR OF STREETS AND ROADWAYS.

## EIGHTH ARTICLE.

DIRECT and proper channels of communication from city to country, and throughout the city, for passenger and vehicular traffic, are an absolute necessity in these days of commercial activity. The interests of public health and safety also demand that a prompt attention should be given in future to all just claims on the part of the trading and travelling public, for ready modes of ingress to and egress from the capital, and that no obstruction of any kind should bar the way. Good streets and roadways are a boon; but, however well they may be constructed, their value will always be considerably enhanced by being kept in good repair, and free of nuisances.

New roads may be made for the public use either by the owner of property, or through his land by an agreement with the sanitary authority of the district. It may be done at the expense of the persons forming the road, or with the consent of two-thirds of the sanitary authority; and any portion of the expenses may be paid out of the funds at their disposal for public improvements. After the road has been completed according to agreement, it will become a public road or highway, repairable in future at the public expense.

Agreeable to the provisions of the English Sanitary Acts (the spirit of which will be followed in the Irish Public Health Bill), where an urban sanitary district is a municipal borough under the Local Government Acts, and there is a surplus of the borough fund, such surplus not arising from a borough rate, the town council may vote any portion of such surplus to be expended in the improvement of the borough, either by expending the money in drainage works, enlargement of streets, or otherwise, in order to carry out the provisions of the sanitary Acts.

In respect to new streets, the sanitary authority may by agreement purchase premises either to make new streets or to improve old ones; and this, being a permanent work, can be paid out of the moneys borrowed for that purpose, with the sanction of the Local Government Board. It will, however, require a provisional order if the work is to be compulsory, and not by an agreement with the parties holding possession of the land required for the purpose.

It often occurs that there are several streets which are termed private which are not repairable by the inhabitants. To determine whether the work of repairing devolves upon the sanitary authority or the private owner, it must be ascertained whether they were public highways at the date of the establishment of the district. This will be the date when the Public Health statutes came into operation in the district, either by an order in council or by the order of the General Board of Health, confirmed by provisional order; or, in cases where there existed improvement commissioners, by resolution of such commissioners, or by any other powers by which the Local Government Acts can be adopted, such as resolutions of the majority of the ratepayers, and so forth.

The present state of the law enables a rural district under a rural authority, which has no control over streets and roads, wishes to have such power, or it appears desirable to the Local Government Board that it should be changed into an urban authority, or ratepayers assessed to one-tenth of the rateable value make application to that effect, then all or any of these powers as to roads may be given to the rural authority. In future, however, without the consent of the Local Government Board, the Local Government Acts cannot be adopted in any rural district. These powers have an important bearing on streets not highways repairable at the public expense. The urban authority has power in all such cases to call upon the

owners and occupiers of any street which is not in a proper condition, to sewer, level, flag, pave, curb, channel, provide the means of lighting, and to metal and make good both footway and carriage-way; and even where the footpath has been a public way the same powers may be exercised. Notices may be served, and, if not complied with, the local authority can do the work, and, as in other cases where the onus of execution is thrown upon owners and occupiers, the expenses may be recovered from the owners or occupiers, either summarily or as private improvement expenses, in such proportion according to their frontage on the street as may be settled by the surveyor; and if there be any dispute, then by arbitration in the manner provided by the Public Health Act of 1848. It is to be noticed, however, that at present incumbents and ministers of churches and chapels, and the churches and chapels themselves, are exempted from payment, and the local authority may undertake the work, and pay the expenses incident to the frontages of these exempted buildings.

In the adoption of any private streets—When any private streets are thus put in order, they may be declared, subject to certain formalities of notice, public highways, and thereafter be repairable and repaired at the public expense. In addition to this, an urban authority may alter and amend bridges, make agreements with turnpike trustees, where existing, for repairing portions of their roads or removing toll-bars within two miles of the centre of the town, and generally may do all such acts as would improve the ways of the district, if, by so doing, they interfere with no private rights.

Private rights cannot be interfered with, save by agreement or compensation, or by provisional order or private acts of Parliament, as in the case of other lands of which they wish to possess themselves. Of course in no case can a sanitary authority lessen any rights, or acquire land or property, or dispossess any person of any privilege, without making due compensation. It should also be borne in mind that all interference with private rights or property for a supposed public advantage should be attempted in a conciliatory spirit, and without an assumption of claim to disregard private possession. All forcible and high-handed efforts, which are distinguishable by a total disregard of private rights, defeat intentions, however good, in the interest of improvement and the public health, and often interpose serious obstacles to sanitary advancement.

No new road or way in the rural districts can in future be deemed or taken to be a highway, or repairable by the public at large, unless three months' notice be given to the surveyor, to whose satisfaction, and also that of the justices, it must be kept in repair for twelve months; and, in addition, there must be a vote of the vestry or other authority adopting it as of sufficient utility to the inhabitants of the parish to justify its being kept in repair. If the vestry or other authorities decide against making the road, the justice may then summon the party purposing to make the road before him, and he will determine whether or not the road should become a public way. All these powers of the vestry may now and in future be exercised by the sanitary authority of the district.

In urban districts, in the case of an owner desiring to dedicate a new road, the consent of the sanitary urban authority is essential; and if it is not satisfied with the condition of the road, the certificate of justices will be of no avail. Before entirely closing or partially closing any way, footpath, or carriage way, with a view to its diversion, certain points must be observed which clearly involve public rights. The surveyor must request the view of two justices, who, if of opinion that the new way would be nearer or more commodious to the public, will certify that they have viewed the highway, and their opinion as to its being nearer or more commodious to the public. A consent in writing from the owner of the land through which

the new highway is to be made will be necessary, as also a notice exhibited on the spot, and advertised for four successive weeks in a newspaper circulating in the county, and also for four Sundays on the church doors in every parish in which the highway is situate. There must also be a plan by a competent surveyor, setting out the old and new highways, bounds, measurements, &c. It may be added that the various documents, certificates, plans, &c., are lodged with the clerk of the peace of the county, who reads them in open court, and afterwards they are enrolled among the records of the court of quarter sessions.

In regard to the contributions of owners and occupiers, the maintenance and repair of roads and streets, contractors' duties, neglect of the sanitary authorities through obstructions in streets, insecure buildings, and other nuisances, we will treat of in next paper. It is to be hoped the Irish Health Bill, when finally amended and passed into law, will provide a remedy for many of the evils we have pointed out in previous papers. There is no city in Ireland stands so much in need of efficient sanitary administration as the city of Dublin.

## PARISH HISTORIES.

## BOOTERTOWN AND DONNYBROOK.

PARISH annals and records are the sure foundation of local history, and well-authenticated local chronicles are invaluable feeders to national histories. The history of a country *in globo* is, however, one thing, and the history of a county another,—each requires a different treatment. From the former much that is merely local must be eliminated, but in the latter, its chief value lies in its local colouring and the materials that contribute to its lights and shades of social life and character.

The volume\* that suggests our present remarks was begun fourteen years since, and the fourth and concluding part was only recently published. Fourteen years would have been a considerable time to be engaged on a single work embracing a couple of parishes, if the author were not otherwise specially engaged; but in the present instance, taking into consideration the author's profession and the many calls that devolve upon an incumbent or rector of a parish, his time has been well and industriously spent. Added to this there are allowances to be made for hunting up requisite materials, and the difficulty to be experienced in finding where these indispensable materials existed. Many of the needed materials of our author seemed almost inaccessible when he commenced his labours, but every obstacle after awhile was found to give way to untiring and indefatigable research. The perusal of one old musty tome, newspaper, or journal, suggested another; a name in a parish register, or on a tombstone or tablet, suggested an identity with a second; thus link was added to link, until the circle was nigh complete.

We have no doubt but our author felt, before the publication of his last instalment, some little difficulty on the head of the materials that his industry had brought to light. It no doubt became a question with him what he ought to retain or eliminate in view of the exigencies of publication, size and cost being matters that cannot be overlooked in these times. On the whole, we think our author decided wisely in numerous instances to refer to his authorities, and indicate the interesting material that became impossible for him to use *in extenso*. We have ourselves often laboured under a like difficulty, anxious to include, but compelled from more than one incidental obstacle to throw a rich cargo of material overboard, for other times and other men to take up and busy themselves over. Mr. Blacker is to be commended

\* "Brief Sketches of the Parishes of Bootertown and Donnybrook," &c. By the Rev. Beaver H. Blacker, M.A. Dublin: George Herbert. London: Simpkin, Marshall, & Co.



for the honesty he displays in indicating his sources of information, for it is a common and reprehensible fault in these days to first make use of and then completely ignore the sources of your indebtedness, whether these be documents, publications, or persons. The writer of this notice has himself for many years laboured silently, but industriously and hard, in hunting up materials for several wants, and indicating them in different directions. He has lived, however, to see them made use of by Irish and English writers in not a few channels without the least acknowledgment. One or two native *littérateurs* out of a dozen of freebooters have honestly given their authority.

Passing from self to the subject of our notice, we think that Mr. Blacker is quite free from all charges of a like nature that might be brought against him by too captious critics. In his volume will be found an immense amount of epitomised matter connected with Donnybrook and Booterstown, from the earliest times. The noted families and incidents, the institutions and public characters, the derivation of names, and their changes through centuries, more particularly in respect to the words Ringsend, Booterstown, and Donnybrook; extracts from the parish registers *in re* births, marriages, and burials, among which lists many celebrated worthies are indicated with additional notes,—in fact that which goes to make a parish history interesting is included in Mr. Blacker's "Brief Sketches."

It was our intention to have given some copious extracts, and supplement them with additional matter from sources that have escaped Mr. Blacker's investigations, or perhaps that might have been known but not examined, from their unpromising look. We must, however, relinquish our task for the present, and indicate rather than extract a few particulars.

Connected with Ringsend, Ball's Bridge, Irishtown, Donnybrook, Booterstown, and neighbourhood, additional particulars of incidents and personages will be found in the following channels, some of which are included in Mr. Blacker's authorities:—*The Anthologia Hibernica*; *Cox's Irish Magazine*; *Hitchcock's Irish Stage*; *Topographia Hibernica*; *Malton's Views of Dublin*; *Poole and Cash's*, ditto; *Archdall's Monasticon Hibernicum* (new edition now publishing); *Observations on Mr. Archer's Statistical Survey of the County Dublin*; *Rutty's Natural History of Dublin*; *The Post Chaise Companion, or Travellers' Directory through Ireland*; and other odd volumes and short-lived periodicals published at the close of the last and during the first decade or so of the present century. Mr. Blacker has made use of some of the old Dublin newspapers of the last century with advantage, and more matter may still be excavated from the old files of the Dublin Press during the eighteenth century.

The several histories of Dublin are in a great measure but a repetition of each other in many local facts, and the later have adopted the errors of former ones. Mr. Gilbert's volumes are in general trustworthy, and contain a large amount of what may be styled truly local Dublin history with local colouring. A good many of the persons noticed in connection with Donnybrook, &c., in Mr. Blacker's work have in reality only an incidental connection with the parishes through marriage or burial, but nevertheless as several of them were noted personages, it came fully within the province of the local historian to give a few reliable particulars concerning their lives. Sir Edward Lovet Pearce, the reputed architect of the Parliament House, being buried in Donnybrook churchyard, is not forgotten in the volume; but it being doubtful whether he actually designed the building, or the plans were the work of Richard Castles or Cassels, we think the moot point should have been mentioned.

The particulars given in Mr. Gilbert's History of Dublin in reference to Pearce go far to prove he was the architect of the Parliament House, but grants or resolutions of a House of Commons in favour of the reputed

architect do not go to prove that he was not indebted to the architect of Leinster House and the Lying-in Hospital. Vallancey, the well-known antiquarian, was, it appears, married in Donnybrook Church to Miss Juline Blosett in 1766, and he was buried at St. Peter's, Dublin, in 1812, in the 88th year of his age. The antiquarian was well worthy of a few more brief particulars. We drop across the name of Mr. Henry Delamain, whose death is referred to in 1737, and an extract is given from Sleater's *Public Gazetteer* on the occasion of his widow's death in 1760. It appears that Captain Henry Delamain "was the first that brought the earthenware manufacture to perfection in this kingdom." Was this Henry Delamain any relation to the Mr. Henry Delamain referred to in Joseph Cooper Walker's *Memoir of the Armour of the Ancient Irish*, as being the last member of the Dublin Archers' Club, and who lived and retained all his faculties to the year 1781? Of the Lees family, to which reference is made, many further particulars are available, not as to genealogy, but as to public transactions in connection with the Post Office of Dublin. In a *Brief Review of the Irish Post Office from 1784 to 1831*, when Sir Edward Lees was removed from that establishment, many severe accusations are made by the author, P. C. O'Neil, against the Lees.—Sir John his son, Sir Edward, and the brother of the latter, Sir Harcourt. The author of the postal *exposé* pamphlet held an appointment for many years in the Irish Post Office, as also his brother, Mr. N. J. O'Neil; both, however, after many years' service, were dismissed through the representations of Sir Edward. There is some little scandal in the pamphlet, and allusions to "excursions" down to Blackrock, Montpelier, and elsewhere. We shall not dwell further, however, on this subject, and we only refer to the pamphlet as a historical matter.

There are several noted names in Mr. Blacker's "Brief Sketches," concerning which a variety of curious and authenticated notes could be given, but it would swell his volume to a large bulk to include them.

The old county maps and the travelling map of the roads, given with the old *Post-Chaise Companion*, are worthy of consultation, and so are the old Dublin almanacks and directories, by Watson and Wilson. We found the latter often very useful in identifying names, dates, and occupations of persons long passed away. As old views and drawings are often found most useful in compiling a local or parochial history, we may mention, in addition to those alluded to by Mr. Blacker, we have met with some others, principally engraved ones. One is before us as we write. In Walpole's *New and Complete British Traveller*, a very large gazette, published by Alexander Hogg, Paternoster-row, London, in 1784, two copperplate views appear. The first is "View of the Black Rocks, New Town Bourn, Bray Head, &c., in Ireland," and the second is a "View of Ringsend, Irish Town, Pool Beg, Clontarf, Ireland's Eye, Dublin Bay, &c., in Ireland." These old "Views" are not unworthy of being studied and compared with modern illustrations of the same places. The same old gazette alluded to contains "A Prospect of Dublin, the Capital of Ireland," and is enriched with numerous other views of places in England and Scotland, several of which were drawn and engraved by Irish as well as English artists.

We must draw our notice to an end, though we would fain enlarge upon the subject matter. We trust that Mr. Blacker will carry out his intention of recasting the arrangement of the material of the volume. In this respect his work is defective, but not to a degree to cause any material injury to the value thereof. With a re-arrangement, some additional notes, the correction of some few inaccuracies, and a good index, the volume in a few years, should the author live, might gracefully appear under the more emboldened title of "The History of Booterstown and Donnybrook, with Brief

Sketches of the Vicinity." As it stands, however, the work, though local, is an important and valuable one, and evidences much painstaking research and rare industry on the part of the author.

#### TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville*.

THE histories of London, Liverpool, Newcastle-on-Tyne, and Glasgow music-halls have very recently been written, and, as I perceive that a want long felt in Dublin is at last about to be supplied, in the shape of a respectable music-saloon, where the amusement and pocket of the pleasure-seeker will be considered, I think I cannot do better than inscribe the epitaph of the existing halls of harmony.

The reader may not, perhaps, be aware of the fact that there exists in the choice neighbourhood of Capel-street an institution whose proprietor has dubbed it the "City Music-Hall;" while in the retirement of Adam-court there flourishes, remote from the turmoil and bustle of unceremonious everyday life, a place of amusement which rejoices in the cognomen of "The Harp;" and in the court yelet Crampton another morgue for music upraises its head, which keeps up a "nodding acquaintance" with coal-porters, music-hall cads, and the like, and is colloquially known as the "Monster Saloon"—a name which, if altered to the "Baboon Cave" might possess a semblance of truth.

But why proceed to enumerate them? Shall I write of "goats" and "Siamese soldiers?" Shall I hand down to posterity my experience of Jude's when it was in the flesh? Or shall I come the moralist, and inscribe an essay on music-halls and the "vice and vanity"—so unvarnished that it would have delighted the heart of Smollett—appertaining thereto? No, I shall not; but I will endeavour to prove that the opening of a well-conducted hall in Dublin is a public benefit, inasmuch as it is likely to counteract the baleful influences of the existing dens. An effort in this direction should neither be looked upon lightly nor despised. The best plan that I can conceive for proving my statement is to relate my experience of

#### A NIGHT IN A DUBLIN MUSIC HALL.

The music-hall to which I refer was constructed for the reception of about 500 persons. It consists of a pit, and one or two (I cannot say which, in consequence of the salivating propensities of the immortal gods) tiers of boxes. The stage is shallow and badly built—so shallow, in fact, that if the performers attempt any movements they appear as if about to come down to the lights. Some twenty feet above the "boards" dangles a very dirty sky border, and an orchestra composed of a piano and two chairs, with a barrier consisting of a beer-machine, the handles of which have been broken off, turned backwards, completes the *tout-ensemble*. The working orchestra possesses a pianist and trombone, which latter is evidently jealous of the amount of "public attention" which the pianist engrosses as he tootles away, unmindful of time or music, and a considerable tootle he makes of it, I can tell you. Mr. James Siggins, *alias* Signor Spanleskidini, presides at the piano in his shirt sleeves, and performs impossible fantasias on all descriptions of music, accompanied by a swaggering wag of head and body, after the most approved style of Dr. Bulow, which is most refreshing to behold. But, hark! He rattles the "Carnival of Venice," and three young ladies, whose line is evidently not the clothes line, rush forward and go through that most disgusting piece of Parisian folly called the *Can-Can*. The ladies of the ballet at last disappear to

\* Any of my readers who contemplate erecting a brass monument of me can save themselves the trouble, as after the display of the other night I object to immortality in any form. OLWMPUS



the wings, and we have a bout with the "comic" in his most facetious parts. Then comes on a dismal-looking gentleman, who sings a sorrowful serio-comic sort of dirge, to which is appended an exceedingly sorrowful moral, with a ludicrous effort at effect. The song is a failure, and the moral possesses similar value to that which might be attached to a patent for a new family washing-machine in the Sandwich Islands.

The "sentimental" singer, as I heard a speck of the great unwashed term him, gave us a strain which must have made the milk teeth of the juvenile occupants of the gallery curl, respecting the exploits of a certain "Knight with the Golden Crest," who, it appeared, played "Erebus and Thomas" with the Danes at the battle of Clontarf, and was eventually found dead, leaning on a lute under his mistress's window, who had changed her lodgings some five years previously, having married the Knight of the Sable Visor, the eccentricities of whose nature appeared to be embodied in a weakness for boar hunts, gallons of wine, and retainers, whom he diurnally kicked down stairs for the sole purpose of kicking them up again. "Rocky Wonders" followed the "sentimental," and the chaste amusement of the evening terminated with a brace of sham niggers, who went through a grand pump dance, which in grace and effect bore a close resemblance to a dance of elephants and hippopotami. When I left the music-hall, I dropped over to see a doctor, in consequence of my having received an empty beer receptacle on the cranium, which punishment was awarded me by one of the rank and file for having laughed at the pianist and commented upon the performance in an audible voice.

It is surprising that, in the choice of position, neither Messrs. Dust nor Williamson cast their eyes on the vacant Brunswick-street house. Can it be that the many failures which have occurred therein have given the theatre a bad reputation? Perhaps so; yet I am certain that with a good burlesque company, added to the usual attractions of a well-conducted music-hall, the Queen's could not fail to pay. Trash will not please any audience, no matter of how low a class it may be, and since the time of Webb, trash has been the staple commodity at the Queen's, the dramas being chiefly of the "Orlando the Orphanless Outcast of the Ocean" type, while in the comedies, lawyers' clerks and murderers clamber over high garden walls with needless hurry and agility, when unlocked garden gates lie invitingly open. Whatever it may be, the comic waiting-maid, who is always an inseparable accessory to this class of comedy, is mistress of the situation, and is not merely the confidante, but the mistress of her mistress. It is by her permission only that her "young lady" makes love, and either encourages her to hope or drives her lover to distraction, pistols, poison-vial, and all that sort of thing. She turns flower-seller without a syllable of notice, nor does she vouchsafe an explanation when she resumes her ordinary duties, nor will she produce a reason for her re-appearance as servant, except to rush into the arms of the comic lawyer's clerk, and, when the curtain falls, to drop a curtsy at the "lights." As to the class of burlesques and farces produced at this theatre under former managements, you remember Byron's criticism—

"I saw the Crystabel :  
Very well."

The passage at arms which has lately taken place between the IRISH BUILDER and the Newry journals, was, to say the least of it, a highly amusing affair. The former pointed out the existence of a nuisance in Sandystreet, and the latter immediately transferred some of their nuisance to Dublin, in the shape of journalistic mud. In reply to the friendly warning of the BUILDER, the *Newry Telegraph* flings ink about the "odoriferous Liffey," and conducts its argument on the

can-any-good-thing-come-out-of-Nazareth-keep-your-advice-to-yourself plan.

Now, I remark that lately the northern journals are assuming a decidedly impertinent tone towards their Dublin contemporaries. It was only the other day that one of the daily papers made the late Belfast failures the subject of a leader, whereupon the *Belfast Morning News* (the veritable game-cock of the north), not seeing the right of the Dublin paper to monopolize its subject, ruffled its feathers and went into action. It referred to the metropolis as "the vice-regal village," "a home of conceit and a city to let," alluded to our court as a "mock" one, our aristocracy as one of shop-keepers, and advised us to "infuse into our toadying citizens and bankrupt Corporation some of the spirit that has made Belfast what she is." I should like to know what "small lord" was anxious to inscribe his name on the imperishable scroll of fame by penning the article from which I take the above extracts? But I must not be inquisitive. I must not inquire whether the family histories of such of the Belfast penny critics as have known a grandfather enable them to supply examples of the virtue which they vehemently demand from the "toadying citizens, the shop-keeping aristocrats of Dublin;" nor must I suggest to those aristarchs of the northern Press an abstinence from a single jibe, a sacrifice to a single rule of grammar. No; they must be permitted to waste their time and ink, and remain oblivious of the fact that a *Hand-book of Etiquette* is published at the reduced cost of 6d.!

OLYMPUS.

#### A YEAR'S WORK IN RATHMINES AND RATHGAR TOWNSHIP.

At the annual meeting of the Commissioners, the annual report was submitted. As it details many matters which formed topics for discussion in this journal, and as it is otherwise a chronicle of work done and attempted, it will not be amiss to give it a place in these pages. The report stated:—

The past year has not been so favourable in the extension of the township as those which have preceded it, and the increase of valuation has been only £1,288, raising the total to £88,056. The board have devoted the most anxious care to meet and surmount the numerous pecuniary difficulties that have surrounded them, so as not to have recourse to an increased rate, as they attribute a large portion of their success and good standing to having, so far, been able to adhere to their uniform rate of two shillings in the pound, in spite of the increased price of almost every material they use. The principal cause of their embarrassment has, of course, been the heavy expenditure—nearly £6,400—on the new waterworks, requisite to give a proper supply to the Rathgar ratepayers. The cost, both of erection and maintenance, has been much beyond their expectations, from the greatly enhanced cost of everything. As stated in last year's report, only £6,000 remained of their powers to borrow, and the remaining £3,400 has to be obtained from current receipts. A relief, to the extent of £2,000 and upwards, was obtained by the collection of the rate three months earlier than heretofore, and the members of the board gratefully acknowledge the kind willingness of the ratepayers, with very few exceptions indeed, to help them along by paying their rates earlier than usual. It will be seen that there is an enormous increase in the cost of roads, not including a sum of £457 expended for horses and stables. The experiment, however, of taking the horse supply into their own hands, has been so far satisfactory. In the item of lighting, it will be seen that an economy of £200 has been effected, though eight new lamps have been granted. An arrangement, not yet quite complete, has been made for twelve years. The board has been fairly met by the directors of the Gas Company, and they consider the proposed agreement, at £2 12s. per lamp, a fair one for all parties. Another draught on their resources has been the taxation of their water mains, which figures in the present account for £110. Asphalt has been laid down to the extent of £300 by the Commissioners' own workmen, and a similar sum is proposed to be expended annually until all the paths are completed. Nothing has yet been done in the main drainage works of the city, and the whole matter must come before Parliament

again, the present borrowing powers being wholly insufficient. The Commissioners, by the kind aid of the chairman of the county, have succeeded in obtaining a revision court for Parliamentary voters at Rathmines, so that their constituents will be able to register with little trouble. At the instance of several respected ratepayers, a short notice of the proceedings of the board had been made public every month, and any ratepayer desiring any further information can always obtain it from the secretary.

The financial report was submitted, from which it appeared that the receipts and expenditure for the year had been £17,525 13s. 5d., and that the Commissioners owe a balance on their overdrawn account of £471 2s. 7d.

The engineer's report stated that the reservoirs, engines, and other works executed for the supply of water to the Rathgar and upper level district of the township have been completed, and are now in perfect working order. The reservoir at Harold's Cross contains 120,000 gallons. It is built in brick and cement, and completely covered over by arching. It has proved perfectly water-tight, not having shown the least leakage through either sides or bottom since its construction.

The state of the sewerage of Castlewood-avenue was brought under the attention of the meeting by Mr. Duggan, and the Chairman, in reply, said that the Commissioners would have the defects remedied.

The Rathmines neighbourhood has been considerably improved within the last fifteen years, but the growth of its buildings renders greater attention than ever to be paid to its sanitary condition, and the keeping up of a pure and continuous water supply for its rapidly-increasing population.

LIFFIANA.

WE would, we fear, be remiss in our duty, as sanitary advocates and reformers, if we did not place on record in this journal the observations of the Irish Lord Chief Justice on the state of the Liffey. The remarks of his lordship have hastened the temporary remedy which is now impending. The Anna, or Avon, Liffey has had always a literature of its own, and poets in the eighteenth century were wont to sing of its beauties and its silvery stream. We question very much if the last or latest bard of the Liberty could now say a word in its behalf, although it is not the poor Anna Liffey's fault, but that of the lazy and incompetent Council that sits upon its bank. The new literature of the Liffey will soon make a bulky volume, and no one can doubt it will be "racy of the soil":—

The Lord Chief Justice said he wished to make a few observations in reference to a great public nuisance, to which attention had been called frequently, but in vain. He referred to the horrible state of the Liffey, on the banks of which they were assembled. A gentleman holding an appointment in the Four Courts, who was by no means a sickly or delicate person, had stated to him that on a recent occasion he was obliged to leave his office three times during the day on business, and that the third time he passed by the river he felt deadly sick. He (the Chief Justice) on the previous day had received from a gentleman in the Record Office a communication containing an ingenious plan by which the Liffey, opposite to the Courts at least, might be in some way purified. The gentleman proposed that it should be carried out by public subscription, and he offered to head the list with £10 himself. Although he (the Chief Justice) admired the plan, and appreciated the motives of the author of it, he would not be a party to asking the officers of the Courts and the practitioners to subscribe for the purpose of performing a duty that was incumbent on others. He could say for himself that anything to equal the stench of the cesspool in question he had never felt in the whole course of his existence. Last year he tried a case of nuisance occurring at the Camp at Kildare; and one of the witnesses describing it, said it was nothing like what he had experienced from walking down from the railway station to that court. That was perfectly true. The responsibility with respect to the nuisance of which he was complaining rested on the Corporation, and also to a certain degree with the Government of the country. No one estimated more highly than he did the distinguished person at the head of the Government, but if this nuisance got worse he would adjourn the court. The power of doing that rested with him; and then the suitors



might go to the authorities to whom he had referred, and get redress from them if they could. He believed there was no city in the civilised world that contained anything like this nuisance. He had only the power of remonstrating, but if his remonstrance should prove unavailing he would adjourn the court until some other place was provided in which he could sit with safety. It was a pity that the man who had constructed so beautiful a building as that in which they were sitting should have erected it beside a cesspool.

Mr. Heron observed that if the bed of the river was kept constantly covered with three or four feet of water, there would be no effluvia.

The Lord Chief Justice said there were many remedies, but the authorities seemed to be quite helpless in the matter.

His lordship must stand corrected. When Gandon designed the Four Courts, or rather finished the work that Cooley began, the state of the Liffey was not what it had become some years later. Rubbish was certainly thrown into the river, but the increase of the population and of the sewerage, coupled with the neglect of the local authorities as well as the pollution of the streams tributary to the river, which were pure in the last century, have contributed to make it the cesspool it is to-day. On the heads of our adopted architects Thomas Cooley and James Gandon no blame rests. Their selection of site and designs at the time was good, and is still good with a purified Liffey.

On Monday last his lordship stated very emphatically that "he would not sit in the court again unless the Liffey nuisance was abated."

#### THE BLACKBURN ART TREASURES EXHIBITION.

THIS exhibition was inaugurated on the 11th of the last month, by the opening of a Free Library and Museum in the new buildings. The *Blackburn Times* devoted eleven columns to a report of the opening proceedings and description of the building and contents, and in its issue subsequently has commenced the first of a series of articles descriptive of art and industrial matters in connection. We have only space to add that the cost of the new building was nearly £8,000, and it was erected from the design of Messrs. Woodzell and Calcutt, architects, Finsbury-place, London, the contractors being the local firm of Marshall and Dent. The style is described in the local paper as "the early period of Gothic architecture, with French feeling." For elaborate details in respect to structure and exhibits, the local paper referred to might be consulted with some profit.

#### THE PAROCHIAL RECORDS OF DUBLIN.

PENDANT to the notice of Mr. Blacker's work on Booterstown and Donnybrook, in this issue, we again think it desirable to direct attention to the mass of unutilised material existing in the shape of Parish Registers and entries in connection with several of the old parish churches of Dublin. We threw out a suggestion in view of their publication in our issue of the first of the last month, and we are firmly convinced still that a little energy and organisation only is needed to enlist practical public sympathy in the matter.

The Rector of St. Bride's has afforded the public an insight into the nature and value of the documents belonging to his parish by his published letter which we re-produced. Surely an impulse can be given by the Press and the clergymen of the city parishes to such a commendable and popular movement as is embraced in a united effort to publish our parish records. Let a circular letter be forwarded to the rectors of all the Dublin parishes, a meeting convened, an hon. sec., *pro tem.*, appointed, and at this preliminary meeting the simple *pros* and *cons* can be discussed, and the difficulties and obstacles (which are not very large) considered. We

have had Hospital Sundays, and Sundays for good objects, and other days set apart for other useful ends. Why could it not be agreed on the part of the united parishes to have a day set apart for voluntary donations to pay the preliminary expenses of rescarches and examinations of materials for the Annals of the Dublin Parishes? The volumes, without any question of priority being discussed, might be brought out in alphabetical order according to the initial letters of the name of the parish. If several editors undertook the task, the first volume published might contain the history of three or four or more parishes, popularly compiled and digested. A united effort on the part of all the parishes of the city of Dublin would render the work easy of production. Without any unnecessary delay, then, let there be an organised effort for the formation of "The Parish Records Publication Committee of Dublin." We believe the time is opportune for such an undertaking, and we consider the object is one that should commend itself to every-right-thinking Irishman, irrespective of sect or party.

#### CIVIC LYRICS.—No. LXIV.

##### NOON ON THE LIFFEY\*

(With the tide out).

I stood beside the River,  
At noontide's busy hour,  
With troubled heart and liver,  
And temper rather sour.  
The Liffey, thickly coated  
With scum, rolled on at ease;  
'Midst other things, I noted  
That I began to sneeze!

'Midst smoke, and sneeze, and shaking,  
My dreams were realised,  
And there was no mistaking  
The sights unexercised.  
Dead cats and dogs a legion  
Bobb'd up and down the stream,  
And, full of foul contagion,  
The sewers belched their steam!

Oh, lord! my Lord Chief Justice,  
Oh, save us from this stench!  
Though not of Health the *custos*,  
Say something from the Bench!  
You wear the spotless ermine  
Beside a noisome ditch;  
Lay on the local vermin,  
And guard the poor and rich!

All this I spoke with passion—  
Who wonders that I did?  
Or that I lack'd compassion  
For Civic laggards' child?  
And, had they got the gibbet  
To supplement the cat,  
'Twould be a just exhibit  
Of proper tit for tat!

CIVIS.

#### THE ARCHITECTS' DINNER, LONDON.

THE Royal Institute of British Architects concluded their Conference with a dinner on Friday evening, the 19th ult., at Willis's Rooms, under the presidency of Sir Gilbert Scott. Amongst those present were—Col. Sir James Hogg, M.P., Chairman of the Metropolitan Board of Works; Mr. Beresford Hope, M.P.; Sir John Gilbert, R.A.; Captain Douglas Galton, Professor Kerr, Mr. John Gibson, Mr. G. Vulliamy, Mr. F. P. Cockerell, Mr. J. S. Phené, Mr. W. Burges, Mr. Chitfield Clarke, Mr. E. Sharpe, Mr. E. C. Robins, Mr. E. H. Cooke, Mr. C. L. Eastlake, Mr. E. J. Tarver, &c.

The President, after the cloth was removed, proposed the toast of "The Queen," which, with the following toast of "The Prince and Princess of Wales," were duly honoured. Mr. Beresford Hope, M.P., responded to the toast of the House of Parliament. Mr. Francis Powell proposed, "Prosperity to the Institute," coupled with the name of Sir Gilbert Scott, on whom he

passed a deserved eulogy. The President replied, with thanks and pertinent remarks on the duties of the Institute. "The Guests" was next proposed by the President, coupled with the names of Colonel Sir James Hogg, M.P., and Captain Galton, both replying. "The Sister Art Societies" was next proposed, and Sir John Gilbert, in the name of his brother painters, thanked the company. Professor Kerr proposed the toast "Prosperity to the Conference of Architects," Mr. Hine, of Nottingham, responding. The healths of the secretaries of the different committees connected with the Conference were next proposed, and Mr. Charles L. Eastlake suitably replied. The President, before the breaking up of the gathering, apologised for his absence from the Conference, and expressed his hearty sympathy with its objects. The after-dinner speeches of the members touched lightly on various topics in connection with public opinion and architectural practice; but, as usual on such occasions, none of them entertained an ill opinion of each other, and for the time at least

"All were jolly good fellows,  
Which nobody can deny."

#### THE LORD CHIEF JUSTICE versus ANNA LIFFEY.

THE supineness and neglect upon the part of the Corporation of Dublin with regard to the offensive odours of the River Liffey has at length evoked the attention of Government, who now seem determined to interfere with a high hand. The project of keeping the bed of the river covered at low water has so often been advocated in these pages, that it is unnecessary to dwell upon its advantages. As a simple, but withal only temporary remedy, it shall have our fullest support.

Exhalations from rivers flowing through towns, as well as exhalations from morasses, may be innoxious or they may be pestilential, according to the localities they emanate from. Out in the open air, and diffused over a wide area, they are offensive, yet comparatively harmless; but, hemmed in by close surroundings, as buildings in the former and trees in the latter, they become fruitful sources of malaria.

Lord Chief Justice Whiteside, who appears to be particularly sensitive upon unpleasant odours, seems to think that the effluvia of the Liffey permeates the Courts of Law, and that this would be sufficient excuse for the abandonment of his judicial functions. But if his lordship would take the trouble of exploring the hidden-up mysteries of the buildings in connexion with the Courts, he would probably arrive at other and different conclusions more likely to account for the offensive effluvia pervading them.

Everyone knows—or, if they do not, they ought to know—that the soil-pipes of water-closets should deliver directly outside the walls of buildings, and that they should have escape-pipes for the gases engendered in them, communicating with the highest level of the walls. Does this occur in the Four Courts? On either side of the benches in all the courts are jury-boxes, and in close contiguity with them are water-closets, generally speaking having no contact with the outer air—no possible ventilation except within the walls of the buildings; many, very many more are scattered in similar positions, constructed in confined situations, without ventilation or appliances to get rid of their noxious gases,—so much so, that it is a wonder of ours the Courts of Law are not fruitful sources of contagion. It is to these, and not to the odours of the Liffey, we are indebted for the impurity of the air which exists within the Lord Chief Justice's court.

Poor Anna Liffey, like many in this world, is blamed for things over which she has no possible control. Perhaps it is that the Lord Chief Justice is proprietor of a copy of the celebrated cartoon "The Silent Highway Man," published in *Punch*, July, 1858, repre-

\* Artists of the R.H.A. are at liberty to make these lines the subject of a historical painting, without infringing copyright.—AUTHOR'S NOTE.



MEMORIAL CROSS TO BE ERECTED AT CUSHENDAL C<sup>Y</sup> ANTRIM



T HEVEY, ARCHITECT, BELFAST

C.W. HARRISON OF DUBLIN - SCULPTOR



THE LIBRARY  
OF THE  
UNIVERSITY OF CALIFORNIA



senting a cloaked skeleton figure rowing upon the Thames, and demanding "Your money or your life," underneath which appears the author's explanation—"The filthy condition of the Thames has long been the fruitful source of disease and death. It is to be purified some day."

Some day we will have poor Anna Liffey restored to her virgin purity. While we are awaiting this, the tardy action of our corporate fathers (unless in the meantime they are placed in commission), we are compelled, as O'Connell used to say, to accept justice by instalments. We therefore gladly endorse the Duke of Abercorn's project of hiding Anna Liffey's sullied bosom in water.

In the first of a series of Afternoon Lectures for 1873, to which the Dublin Sanitary Association devoted the benefit of its advice and assistance, we find Dr. William Stokes, F.R.S., Regius Professor of Physic in the University of Dublin, in a portion of his lecture delivering himself thus:—"If people live in fresh air, and are not overcrowded, have pure water to drink, and are not in destitution, dirt does not necessarily make them sick; neither, under the same circumstances, are bad smells (especially if people are used to them) necessarily excitants of disease. I recommend some of our exclusively detergent sanitarians to visit the north of Ireland at the season of flax-steeping, when they may inhale a wide-spread odour, which some hold as the *facile princeps* of bad smells, yet no consequent annual pestilence ravages that prosperous country. Our own Liffey, when the weather is warm and the tide low, exhales a remarkable odour, yet Dr. Grimshaw's fever map of Dublin shews that the quays are not the *habitats* of fever. Remember the inhabitants enjoy an abundant ventilation; there is no overcrowding and little, if any, destitution. I have heard a gentleman, who for many years lived on Upper Ormond-quay, and the oldest practitioner in Dublin, say that nothing was more remarkable than the longevity of its inhabitants."

There is a bridge we all know—the Metal Bridge—spanning the river. One of the toll-collectors, at least, has occupied his present position for the past forty years. So much for the health-destroying powers of Anna Liffey.

We have no desire to hide the impurities of our river, but we are slow in believing its odours permeate the Courts of Law. Indeed we know from experience the interiors of the houses along both sides of the quays are not sensibly affected thereby—there is enough of ventilation along the banks to prevent this; but we want to place the saddle on the right horse, and to shew that the odours pervading the Law Courts arise exclusively within its own walls. We want to protect jurymen, solicitors, barristers, judges, and chief-justices, as well as the general public from inhaling the pestilential gases generated in soil-pipes.

Our professional readers need not be reminded of the difficulty of staunching the faucet joints of these pipes. It is scarcely ever effectually done; and, when carried within the walls of a building, every minute crevice immediately becomes a vent for the escape of the most deleterious of all gases.

H.

#### THE MANOR OF CLONTARF.

In the extracts from the *Monasticon Hibernicum*, published in our last issue, relative to Clontarf it was stated—"In 1641 the Confederates plundered a vessel which lay at Clontarf. George King, a descendant of Mathew King, being implicated in the outrage, his possessions were confiscated, and granted to John Blackwell, who soon after transferred them to John Vernon, from whom descends the present owner of Clontarf."

The following version, which we believe is based on family documents, appears to be a reliable one, viz.:—"The manor of Clontarf originally belonged to the Knights Hospitallers of St. John of Jerusalem. They leased it to

Mathew and Elizabeth King for 99 years. On the dissolution of the abbey, Queen Elizabeth granted the manor to Sir Geoffrey Fenton, from whom Mathew and Elizabeth King subsequently purchased the fee. John and George King, being "papists," forfeited the manor on account of the Rebellion of 1641; and the lands, being thus vested in the Crown, were granted by Charles II. to Colonel Edward Vernon for his services. By the Act of Settlement that grant was confirmed, and all deriving under him were debarred of all right and title to the manor.

What John Blackwell's title may have been, and other particulars concerning him, it would be desirable to know. Perhaps some of our native genealogists would be able to inform us; and, if the above facts are found to be accurate, it would be well for the editors of the *Monasticon Hibernicum* (now republishing) to add a note or two before the final completion of the work.

#### SUMMER.

(After A. Pope.)

An engineer—he seeks no better name—  
Brought forth his plans, and lithographed the same,  
Where dancing sunbeams on the waters play'd,  
And trees of Sackville form'd a quivering shade.  
Even as he mused, the stream forgot to flow—  
The sewers around a dumb compassion show.  
The Bridge of Essex, beseech'd by either shore  
To aid his plans, consented to be lower.  
Accept, oh N\*\*\*\*\*e, the Muses' early lays,  
That adds this wreath of ivy to thy bays!  
Hear what from Liffey unhappy hearts endure—  
From Liffey's old disease thou canst not cure.  
Ye men of talent (with whom the city teems)—  
Defence from humbug, but not from lawyers' reams.—  
To you I mourn; nor to the deaf I sing!  
Some one will answer, and the works begin.  
The C.E.s and the T.C.s attend my doleful lay:  
Why art thou slower, with lesser brains than they?  
N\*\*\*\*\*d and B\*\*\*\*\*s with my complaints agree—  
They mad with maps, and I with N. and B.  
The scented river gives but rheumatic pains,  
While on thy plans eternal winter reigns.  
Let other C.E.s attend the city's care,  
Make new designs, and in the taxes share;  
But by you river they must pass the day  
In works of rubble, to take the mud away:  
Until at length the Anna Liffey's free  
From banks of mud, so long beloved by thee.  
And yet thy schemes please but the Corporate throng,  
While others laugh the scheme to think upon—  
To think that reapers, coming in the spring,  
Could seize the trowel, and form a sewer's ring;  
While bricklayers' hodmen their position claim,  
To direct the works, and overlook the same.  
For you these men in union band will join,  
To raise a rubble temple to thy last design.  
Accept, oh N\*\*\*\*\*e, what you deserve alone,  
In whom all errors are combined in one!

E. M.

#### MONUMENTAL CROSS.

Our illustration with this number is of a Celtic Cross to be erected at Cushendall, Co. Antrim, to the memory of the Rev. John Fitzsimons. The material of which it is composed is Portland stone, with plinth of Dalkey granite. It is from a design by Mr. T. Hevey, architect, Belfast, and has been executed at the works of Mr. C. W. Harrison, 178 Great Brunswick-street, in the most careful and artistic manner. In the sculptured panels on front are represented the Sacrifices of Abel, Abraham, and Melchisedek. In the centre is the Great Sacrifice of the New Law, or of the Cross. On the other sides of shaft the panels are filled with interlaced ornaments selected from the rarest specimens of Celtic work. It is to be hoped that all admirers of Art-work in the city will take an opportunity of inspecting this specimen (of which our lithograph presents a good idea) previous to its removal to the "Black North."

The following is the inscription:—

ERECTED BY DEVOTED PARISHIONERS AND FRIENDS  
TO THE MEMORY OF A DEARLY-BELOVED PASTOR,  
THE VERY REV. JOHN FITZSIMONS, P.P. AND V.F.,  
WHO FOR NEARLY 32 YEARS WAS THE VENERATED PARISH  
PRIEST OF THIS PARISH.  
HE DIED ON 8TH JULY, 1869, IN THE 63RD YEAR OF HIS AGE,  
AND 39TH OF HIS SACRED MINISTRY.



PRAY FOR THE ETERNAL REPOSE OF HIS SOUL.

#### THE LIFFEY NUISANCE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—At the risk of being considered presumptuous in meddling with a subject of such vast public importance as the Liffey abomination, perhaps a line from a practical tradesman (though his occupation as such has been for some time gone) may, through your courtesy, be permitted to appear in your columns.

My fellow tradesmen (for so I will still call them) and myself have often wondered and laughed at the costly, elaborate, and, in nine cases out of ten, impracticable schemes that have from time to time been laid before the public in the columns of the leading newspapers of our city. Great men and, no doubt, very clever engineers have again and again submitted their complicated and extravagant plans for adoption, their great endeavour being apparently to pile up the monetary agony, to the great terror of our already overtaxed ratepayers. I believe I am correct in saying that in some cases the amount proposed to be expended falls a trifle short of a million pounds sterling.

Now, sir, this might do admirably, were the engineers of our city, and in fact of our country, competing for the production of a plan the most scientific, costly, and intricate that could be devised. They seem to forget, or perhaps they purposely ignore, the fact, that what is wanted is, to get rid of a grievous and most dangerous nuisance in the simplest and least expensive manner. If they would look at the question from this rational point of view, they would certainly deserve well of their fellow-citizens; and there would be a hope of something being done to get rid of the seething mass of putridity that daily and hourly spreads pestilence through our streets, and renders the citizens and their proverbially wordy, good-for-nothing guardians a by-word and a hissing in every corner of the Empire.

But, say some, it is easy to write, and very easy to find fault, but what would this "babbler" say, were he asked to propose a remedy? My plan (which I shall take an early opportunity of submitting to your critical examination) is, perhaps, sir, of too simple and inexpensive a nature to meet the views of all, especially of our civic guardians, but I feel convinced it would answer a temporary purpose. But, ask our worthy Corporators, what will become of all the fragrant, luscious guano?—we want it converted into profitable stuff for the benefit of the citizens! All moonshine; the citizens would not be one penny in the pound less taxed if a million tons of this guano were disposed of annually. Now, as this has become a matter of national importance, let the people strengthen the hands of Government, and aid each other in getting rid of the drowsy squad of listless humbugs that in useless pageantry and pompous display squander the hard earnings of the taxpayers. A brighter day is about to dawn on our city. Would that it were soon ushered in! Some change is wanted, and badly wanted. The trade of our city is crushed beneath a load, an intolerable load, of taxation. I am not a meaningless agitator; but, citizens, look out! Do not submit quietly to any further increase of the rates. If you do, you deserve the infliction, whatever it may be, and, what is more, you deserve not sympathy or regard. Now, sir, in conclusion, I will refer to a well-known fable, and say that the meshes of the strong net of complicated engineering speculation and of Corporate supineness and incapacity may soon be nibbled through by the united efforts of little mice; and that it may be very soon be the earnest wish and hope of, sir, yours,

VICTORIA NON PRÆDA.

#### RECEIVED.

Forty-second Report of the Board of Public Works, Ireland, &c. Dublin: Alexander Thom.

THERE are many matters of important interest to the welfare and industry of this country embodied in this report, bearing upon public buildings, land improvement, drainage, inland navigation, harbours, dwellings for agricultural labourers, sewage utilization, and other industrial wants. In our next issue we will devote some space to an examination of the Report, and also to a consideration of matters dealt with in the Appendices B and C, containing the reports of the inspectors on inland navigation, and harbours, and landed property improvement. In the inspectors' annual reports, 1873-4, there is much that demands more than mere passing notice at the hands of a public journalist.



## THE DIFFUSION OF SANITARY KNOWLEDGE.\*

(Continued from page 172.)

I HAVE stated that I feel it impossible for me to deal at all exhaustively with the ramifications of the subject I have brought before you. My difficulty is twofold. First the abstract difficulty of even enumerating the many causes at work injuriously to affect the air around us, and our water supplies, and the earth on which we tread. Secondly, I desire especially to avoid on the present occasion falling in any way into the error I condemn, that, namely, of assuming any particular modes of dealing with any portions of these subjects to be perfect, and then pronouncing it to be so. My object, on the contrary, is to induce not only the fullest and most convincing process of investigation possible, but also that the force of influence which such investigation may tend to give to particular methods may be diffused as widely as is possible. I should, however, deal with even this province very unsatisfactorily and imperfectly if I failed to give you any evidence whatever of the wide divergence of opinion that now prevails, or of the comprehensive range of the questions to be dealt with.

Let me then adduce the example of a single dwelling placed in the area occupied by a concentrated population; that is to say, I take as an example a house in a street in a town. I have spoken of air, water, and earth, but at once another indispensable requirement intrudes. There must be heat. Beginning at the basement there are two alternatives, radically contrary the one to the other, that first suggest themselves. Shall the basement contain furnaces or drains? Shall it be underlaid with heating apparatus, or with encased liquids and gases? Dry or damp? Endangered or absolutely safe in respect of gaseous emanations and foul smells? Shall the heat be diffused by insensible and active or by present and inactive arrangements? Shall there be fireplaces in each room and chimneys, or an equable heat and one chimney? Shall the exterior be washed or not? Of porous or impervious material? Shall putrescible substances be thrown into water, or shall other arrangements be adopted? If the former, how is the putrid fluid to be dealt with? In bulk, or on the premises? If the latter, what are the arrangements to be? Shall house slops be cleansed in bulk or in detail? Shall all slops be thrown together, or be collected according to their characteristics? Shall each house, if not each room, be dealt with separately and distinctively, or, is it, under certain conditions, better to deal with blocks, rows, and houses in the aggregate, both as to warming and waste waters? If water be not employed as a carrier, how are substances usually conveyed by water to be removed? If it is employed, by what means is its repurification to be attained.

Then as to a street. What is the best way of disposing gas and water pipes and telegraphic wire so as to avoid perpetual tearing up? Which is the best pavement for foot passengers? What is the best substance for a roadway? What are the proved characteristics and the known cost of each foot of roadway material? Is it desirable to consider a separate material for equestrians as much as in recent centuries footways have been introduced? Are trees and shrubs so beneficial as active sanitary agents that their introduction should be looked upon as desirable wherever possible? Should the rain water which falls upon the streets be collected through street filters and be elevated into reservoirs for purposes of street and exterior house washing and watering, for fountains and other purposes, or be hurried away in a conglomerate of mud as hastily as may be possible? Is dust, the dry refuse of impregnated mud, injurious to health or not? Is it preventable by other means than mud puddling?

These are but samples of the simplest form of questions that arise, and with the reiteration of my conviction of how very small a portion of the subject after all they touch if I were to offer them as exhaustive, I am compelled to leave them. I have not so much as touched on overcrowding, which is a moral rather than a structural evil. Still I may safely say, that what I have brought forward is important, and I have only to show you farther how wide is the divergence of opinion that is now advanced in regard to some of the questions.

In opposition to the optimist views to which I have referred, I will first take at random the expressions of opinion recently delivered when, on the invitation of the Council of the Royal United Service Institution, I invited the attention of that institution to some suggestions for sanitary improvement in barracks, camps, and hospitals. The chair-

man, Surgeon-General Mouatt, V.C., C.B., said, "For my own part I cannot see any practical solution." It would be difficult to adduce testimony more decided in favour of the formation of the organization now proposed to you. Surgeon-General Gordon, C.B., said "It strikes me that we have not quite arrived at that state of knowledge when we can bring forward our opinions as definite. When infection enters it is too late to apply disinfectants. There is an infection that is communicable by water, there is an infection that is communicable by air, and there is an infection that is communicable by both air and water." Colonel St. Leger Alcock stated of a poor law union, "At night after the doors were shut, the bad air [ventilation] that came up through the sewers was perfectly intolerable." He added with regard to a lecture on sanitary subjects, that a poor woman said, "I have lost eight children. Had I known what I have heard this day, I do not think I should have lost one." Referring to the smallpox hospital at Hampstead, he further said, "The objection that it would bring the disease into the neighbourhood was looked upon as almost frivolous; but it did. There was communication through the sewers between the houses and the hospital."

Colonel Murray, late of the War Office and Home District, and now commanding Royal Engineers in Ireland, limited himself to saying he was at his own wit's end. He is, I am persuaded, a very fair sample of many thousands ready to welcome the operations of the organisation suggested to us, if only they be adequately conducted. He did say, explicitly, "I shall be very thankful if anyone can give a plan which may be applied in practice." On the other hand, Mr. R. Rawlinson, C.B., took a completely opposite view. On the occasion in question, I advocated the agency of fire, after the application of charcoal, for the destruction of germs of infectious disease. Mr. Rawlinson expressed his views at considerable length, and I understood them as totally adverse to that opinion. I also understood him to say that the subject was exhausted, and all knowledge attained. However this may be, he stated that he had "never heard more fallacies crowded into the same space of time;" that water did not give off impurity by evaporation to an injurious extent; and he added that London with its lanes and alleys, and houses six and seven storeys high, crowded from top to bottom, life of the least possible value, health with the least possible chance, inhabited by gin-drinkers and foul livers of all kinds, had a death-rate of only from 22 to 26 per 1000. So impressed with the fallacies of the paper and the danger of any weight being attached to it was Mr. Rawlinson, that he closed his remarks with this singular sentence, "The paper is not one I can accept, and, in fact, if I did accept it, I should so incriminate myself that my next business would be to go and jump into the Thames and drown myself." Surely this is carrying partiality for Thames water, even in its present condition, too far. He has added to his remarks made at the time the following note in the Institution's *Journal*, "General Synge said that fire would alone destroy the germs of disease; but an ordinary fire will not do this. Experiments have shown that a considerable percentage of gases pass into, and through, a furnace fire, unconsumed up the chimney, and to the open air."

There is another strong evidence of the value which will attach to our proposed organisation, and to the necessity for it. I do not mean merely rescuing Mr. Rawlinson from the fate he somewhat needlessly invoked off Barking Creek, but I refer to the refutation, on his so generally accepted authority, of a common enough idea that noxious vapours passed up a chimney become innocuous. If I am not mistaken, short of whatever heat may have been in the chimney in question, this is precisely—the heat element, however, being altogether omitted—the theory of sewer ventilation by shafts! On the occasion in question, however, I did not refer to ordinary fires, but to distillation and destructive combustion in red-hot closed retorts, and as I do not pretend to any scientific knowledge whatever upon the subject personally, I had simply confined myself to the chemical papers of the discoverer, and to the medical testimony of the health officer of Glasgow, as well as that of Dr. Andrew Feargus of the same city. I had known their opinion, given for the express purpose, to have been acted upon, and I take from the substance of letters expressly addressed to me on the subject by Dr. Russell the health officer, and by Dr. Andrew Feargus, the following unqualified statements. Dr. Andrew Feargus says that the water-carriage system causes decomposition injurious to health, and very much increases the power of infectious matter to spread disease; also that on the contrary a chemical treatment, which he goes on to specify, and which consists simply in the application of charcoal, renders decomposition impossible, and

meets every sanitary requirement. Dr. Russell says, "No hospital should discharge into public sewers," and adds with reference to the system I had seen, approved, and recommended with particular reference to hospitals, that, "it would answer perfectly, and attain the end of destroying the possibility of infection spreading from hospitals in the manner referred to."

The testimony of Mr. Simon as to the preventibility of many forms of disease is probably known to you all. He says:—

"It cannot be too distinctly understood that the person who contracts cholera in this country is, *ipso facto*, demonstrated with almost absolute certainty to have been exposed to . . . pollution . . . that the diffusion of cholera depends entirely . . . upon the numberless filthy facilities for fouling earth, and air, and water, and for the infection of man. Sodden earth, reeking air, tainted water—these are for us the causes of cholera."

Cholera, however, is but one of many kindred; diphtheria had not been epidemic till water was misapplied. Dr. Richardson's table of diseases from organic poisons adds thirteen others to the list. "It is to be hoped," says Mr. Simon, "this sort of thing will come to an end, that so much preventible death-rate will not always be accepted as fate, that for a population to be poisoned by its own art will be deemed ignominious and intolerable."

## THE NATIONAL MANUSCRIPTS OF IRELAND.

(Continued from page 173.)

THE BOOK OF DURROW is an ornamented copy of the Four Gospels in Vulgate version, written across the page mainly in single column, and preceded by epistle of Jerome to Pope Damasus, explanation of Hebrew names, Eusebian canons, and synoptical tables. It contains symbolical representations of the Evangelists and pages of coloured spiral, interlaced, and tessellated ornamentation. The usual number of lines on a page of the text is 25 or 26. Among the capitals, Greek letters are occasionally introduced, and the peculiar red dotting and lineation occur abundantly throughout the book.

This volume acquired its name from having belonged to the monastery founded by St. Columba about A.D. 553, at Durrow or *Dairmag*—the plain of oaks—in the central district of Ireland. Adamnan, in the seventh century, mentions the foundation of this establishment by Columba "in mediterranea Hiberniæ parte monasterium quod Scotticè dicitur Dair-mag."

In the Donegal Martyrology, compiled towards A.D. 1620, we find a memorandum that the "Book of Colum Cille, called the Book of Durrow, a copy of the New Testament in Irish letters," was then at Durrow, and "with gems of silver on its cover." It is noticed about the same period by Connell Mac Geoghegan as being popularly believed to possess miraculous curative properties.

Ussher, who, early in the seventeenth century, collated the BOOK OF DURROW, spoke of it as a most ancient manuscript—said to have been St. Columba's.

The BOOK OF DURROW was presented to Trinity College, Dublin, by its Vice-Chancellor, Henry Jones, who had been Scout-Master to Cromwell's army in Ireland, and became bishop of Meath in 1661.

O'Flaherty, a learned Irish scholar, examined this book in 1677, and found by the inscription that the silver cross on its cover had been executed by order of Flan, who was king of Ireland in the first years of the tenth century.

Edward Lhwyd, in 1707, noticed this manuscript, but appears to have confounded it with the Book of Kells. Dr. William Nicholson, bishop of Derry, in 1724, mentions the inscription as then extant "on a silver cross upon the cover of this book [of Durrow] said to be Columba's own writing, and given to the Library of Trinity College, Dublin, by Dr. Jones, Bishop of Meath."

A poem, in the ancient Irish language, is extant in the Burgundian Library, Brussels, which purports to have been composed by Columba on the occasion of his quitting Durrow for the last time.

According to ancient tradition, Columba gave a copy of the New Testament, in his own handwriting, to each of the churches which he founded in Ireland. A compiler of his native district, in the early part of the sixteenth century, stated that some of these were then extant in rich shrines, piously venerated as sacred relics.

THE BOOK OF KELLS is the chief Irish palæographic and artistic monument which has descended to us from the ages in which Ireland, under the name of "Scotia," was renowned for her schools, whence religion and letters were carried to various parts of Europe. This manuscript is a copy of the Gospels,

\* By Major-General Synge, R.E. Read before the Society of Arts, on the 12th ult.



and received its present name from having belonged to the Columbian monastery of Cennanus, or Kells, in Meath. The foundation of that establishment has been ascribed to St. Columba, but it would appear not to have been of much importance till the early part of the ninth century, when the descendants of the Norsemen on Iona caused the community of that island to provide a place of asylum in Ireland. Under the presidency of Cellach, nineteenth successor of Columba as abbot of Iona, from A.D. 802 to A.D. 815, a "new city of Colum Cille" was constructed at Kells. This became the chief station of the Columbian community, and the abbot of Kells was long known and recognised as the legitimate successor of St. Columba.

The Irish Annals record that, in the year 1006, "the large Gospel of Colum Cille" was sacrilegiously stolen in the night out of the great church of Kells. They add, that this book was the chief relic of the western world, on account of its singular cover, and that it was found "after forty nights and two months, after its gold had been taken from it, and with sods over it."

Of grants and agreements in the Irish language, relative to lands connected with the Columbian community in the eleventh and twelfth centuries, copies are still extant on some of the pages which had been originally left blank in the BOOK OF KELLS.

THE BOOK OF KELLS is now imperfect, both at beginning and end. The surviving portion consists of 339 numbered leaves. The present much worn first page contains the conclusion of explanation of Hebrew names; Eusebian tables, summaries, and arguments or prefaces precede the Gospel of St. Matthew. The version of the Gospels is mainly that of the Vulgate, but with many peculiar readings.

It has been conjectured that the BOOK OF KELLS is the volume eulogised in the twelfth century by Giraldus Cambrensis as the marvellous book exhibited to him at Kildare, and popularly believed to have been executed under the direction of an angel.

With the portions now missing from the commencement and end of the BOOK OF KELLS has probably perished the record of the time and circumstances under which this remarkable volume was produced. It may, however, from internal evidence, be assigned to a period between the sixth and ninth centuries.

THE BOOK OF DIMMA contains the Four Gospels with Latin ritual and prayers for visitation of the sick. A coloured figure of each of the three first Evangelists precedes his Gospel, and the symbol is prefixed to the opening of the Gospel according to St. John. The name of the scribe appears at the conclusion of each of the Gospels. On the fractured final page of the volume, at the termination of St. John's Gospel, after the words "Finit, amen—Dimma Mac Nathi"—are two imperfect and very archaic Irish lines, in which the writer prays that, as the reward of his labour, he may not be "venomously criticized," and that he may attain to "a mansion in the heavens." Of Dimma Mac Nathi no particulars appear to be on record which might enable us to identify him with a skilful scribe, named Dimma, who is mentioned in a legend connected with a copy of the Gospels made in the seventh century for Saint Cronan, of Roscrea, in Tipperary. Dimma, it is said, applied himself continuously during forty days and forty nights to the transcription, and at the conclusion was unconscious that it had occupied more than the one day to which he had limited his engagement with Cronan. This scribe has been assumed to be Dimanus, subsequently Bishop of Connor, whose name, with that of Cronan, appears in the letter addressed to Ireland by Pope John IV., A.D. 634, concerning Pelagianism. Somewhat later in that century, a missionary named Dimma, from Ireland, according to Bede, became the first bishop of the midland Angles and Mercians.

Several ecclesiastics named Dimma appear in old Irish lists of native saints. The name still survives in a parish in the north of the county of Limerick, styled Kildimo (*Cille Dimmu*) from a parish church there under the patronage of a local Saint Dimma. THE BOOK OF DIMMA, now in the Library of Trinity College, Dublin, is stated to have been long preserved in the monastery of Roscrea in a silver case. Of this a portion still remains, engraved with ornamentation of similar style to that in the MS., and bearing an inscription, from which we learn that the case was gilt by order of O'Carroll, Lord of Ely, in the twelfth century, and repaired about a hundred years subsequently by a bishop of Killaloe.

THE BOOK OF MULLING. Mulling or Moling, to whom this manuscript is ascribed, was in the seventh century bishop of Ferns, in Leinster, of the ruling clan in which district he was a member. He is represented to have taken a prominent part in

Irish affairs, and to have obtained from Finacta, King of Ireland, the remission of the tribute styled *Borama*, previously levied from the Leinstermen.

Mulling died in A.D. 697, and was regarded, especially in Leinster, as one of the principal saints of Ireland, where his festival was observed on the 17th of June. Predictions ascribed to Mulling are referred to in the twelfth century by Cambrensis, who classed him, as a prophet, with Merlin, and, as a saint, with Patrick and Columba. His name still survives in that of the town of St. Mullins, in the county of Carlow, so called from the church which he founded at *Teach Moling* in its vicinity.

THE BOOK OF MULLING is a copy of the Four Gospels, with formulæ for visitation of the sick, and figures of three of the evangelists. The manuscript is unbound, unpagged, and in a damaged state. With some leaves of another old copy of the Gospels and cognate matter, it is preserved in an antique metal case, ornamented with crystals.

A colophon in semi-Greek characters—somewhat similar to but larger than those in this manuscript—is to be found in the Irish copy of Adamnan's Life of Columba, transcribed in the eighth century, and now extant at Schaffhausen. Some lines of an Irish poem connected with Mulling were found by the late F. J. Mone, director of the archives at Carlsruhe, in a manuscript of the monastery of St. Paul in Carinthia. It had been brought to Carinthia from the monastery at Reichenau, near Constance, a resort of Irish monks in the eighth and ninth centuries. Mulling's book and its ancient case were of old looked upon with much veneration in Leinster. They were preserved in the custody of the family of Kavanagh, of the ancient regal line of that province, and native lords of the district named from them "the Kavanagh's country," over which their kinsman, Mulling, had been bishop. Mulling's book and its case are now preserved in the library of Trinity College, Dublin, where they were deposited in the last century by the Kavanagh family of Borres, in the county of Carlow.

THE GOSPELS OF MAC REGOL. This is the largest sized of the old Irish gospel-books. It contains the four gospels, with figures of Mark, Luke, and John, each occupying an entire page; a page of large ornamental letters is also devoted to the opening portion of each Gospel. The artistic work in the Gospels of Mac Regol is less elegant than that in the Book of Kells, and various inaccuracies of transcription are apparent in the text.

The Irish Annals record the decease, in the year 820, of Mac Regol, or Mac Riagail, grandson of Magleua, scribe, bishop, and abbot of Birra, now known as Birr, in the central part of Ireland. This monastery was founded in the sixth century by Brendan, a cotemporary and friend of Columba.

But for the survival of the final page, there would probably have been no means of ascertaining by whom this manuscript had been written and ornamented. The entry, "Mac Regol dipinexit," is analogous to that in the Irish copy of Priscian at St. Gall, in which we read, "hucusque calvus Patricii (Maelpatricii) depinxit." Mac Regol's manuscript was presented, in the seventeenth century, to the Bodleian Library by John Rushworth, from whom it has been styled "Rushworthianus." The learned Humphry Wanley entertained a high opinion of the value of this manuscript, which he mentions was supposed by some to have belonged to Venerable Bede. Not being acquainted with any particulars concerning the scribe, Wanley considered the volume to have been written before the middle of the eighth century.

The Saxon interlinear version of the manuscript, together with a collation of the Latin text, was, for the first time, printed under the editorship of the Rev. Joseph Stevenson and Mr. George Waring, 1854-1865.

(To be continued.)

## SANITARY AND OTHER NOTES.

THE chief sanitary difficulty for the present in connection with Dublin is alluded to elsewhere in our pages. Not until the Lord Chief Justice, the Lord Lieutenant, and the Parliament had moved in the matter, was anything attempted to be done to relieve the city of an intolerable nuisance. In the Northern Divisional Court, Mr. Wallis, contractor to the foraging department of the Royal Irish Constabulary, Phoenix Park, was summoned by Police Inspector Gallaher for having light weights in his possession. As it appeared that the weights were supplied by the Government, and bore the Government stamp of accuracy, the magistrate dismissed the summons, and said he would allow

the prosecutor to settle the matter in any way he thought fit, for it was hardly fair to hold Mr. Wallis responsible for inaccurate weights provided by the Government.

KINGSTOWN.—It is reported that the Kingstown Commission has bound itself to hand over the premises known as "Harrymount," held in trust for the ratepayers as a town hall, to the Roman Catholic clergy of Kingstown for the purposes of their hospital. The commissioners attending at the disposal of this property were—Messrs. Crosthwaite (chairman), Brazil, Galligan, O'Rourke, Reilly, Sexton, and the solicitor, Mr. Lawlor. The value of the premises for township purposes (says a correspondent of a contemporary) may be estimated from the fact that they are held on a long lease, occupy an acre of land, are situated in the centre of the township, cost but £73 a year, and have, at considerable cost to the rates, been adopted for a board meeting-place, town clerk's residence, storing and stone-breaking purposes, stabling, &c. New and much inferior premises are about to be taken for the town, at about the same rental, but it is understood that a plea for a loan of £10,000 will be based on this new movement.

BRAY.—At the final sitting in the Court-house, *in re* the auditing of the accounts, Mr. Finlay, six town commissioners, four solicitors, the town and county surveyor, the extown clerk, and several ratepayers being present, a report was given by the auditor. On a principal objection lodged against the payment of £1,000 for the formation of Bray-commons-road, flated by Judge Barry, although the time for making the road (six years) had elapsed, the opinion of Mr. Fitzgibbon was read; it closed as follows:—"I think that the fiat of the presentment, the reception and trial of the traverse, and the order of the judge thereon, constitute a proceeding before a tribunal of competent jurisdiction, establishing the legality of the expenditure to an extent not only warranting, but requiring, its being passed by the auditor." The auditor announced that he would act on this opinion of counsel, and allow the sum in question in the township accounts. He also successively allowed the following items, objected to by the outside committee of ratepayers:—£50, the expenses of Mr. Breslin and others in London on a Dublin Gas Bill; law costs of Mr. Toomey, one of the three solicitors employed from time to time by the Town Commissioners, amounting to £170; and the expenses of an extension of the Boundaries Act, with the surveyor's fees thereon. He disallowed sewerage expenses, as district sewerage rates had not been struck, but it was intimated that a new rate of 4d. in the pound could be struck to recoup this item. The Commissioners ran the gauntlet well, and they will require to be more careful of expending the public funds in future.

LIMERICK.—We are glad to learn that Limerick is likely soon to have a free park for her inhabitants. The boon will be more appreciated a quarter or half century hence than even now. With the increase of population, we cannot have too many open spaces to act as lungs to our cities and towns. At a meeting of the Corporation (the Mayor presiding), Mr. Connolly, law agent, said he had received from the solicitor of the Earl of Limerick the memorandum in reference to the grant of Perry-square and the surrounding grounds to the Corporation, for the purpose of converting them into a people's park. His lordship proposed the adoption of a lease of the lands for five hundred years, with the exception of a small portion reserved to St. Michael's Church, the remainder to be handed over to the Corporation, subject to certain conditions, the principal of which were, that the latter body should make a new street extending from Mallow-street to Newpark; that they should make the leased lands a people's park; that no political or religious meetings should be held in the park; and that bands should not play on the grounds on



Sunday. Other passages in the agreement provided that the Russell Memorial Committee should indemnify the Corporation to the amount of £1,000, and that the Corporation should expend £150 in maintaining the park. A resolution referring the matter to a committee was negatived, and the agreement was adopted.

NEWRY.—The Commissioners, or rather a couple of them, consider it "a great slander" and "monstrous" to be reminded by the Press of the unsanitary condition of Newry. The local organs are apparently getting out of tune, having all but exhausted their wind last month. The fact is—

That poor Newry,  
In a hurry  
And a hurry,  
Makes less speed.  
Self-sufficient,  
Inefficient,  
And deficient,  
In the deed.

### THE ROYAL IRISH ACADEMY.

At a general meeting of the Academy, held on the 22nd ult., Dr. WILLIAM STOKES, President, in the chair, Mr. Bindon B. Stoney, C.E., read a report on "Riveted Joints."

The Secretary, Dr. E. P. Wright, read a paper, by himself and Mr. J. Baker, "On the Ferns of Seychelles."

Mr. W. Stokes, jun., M.D., was elected a member.

The Treasurer, Mr. J. R. Garstin, read a letter of Bishop Bennet, of Cloyne, addressed to Dr. Porter, Bishop of Clogher, describing the French landing at Killala in 1798, and their subsequent progress. The letter is somewhat valuable, as it affords an insight into opinions held respecting a historical affair, the result of which had an important bearing on the future of this country, dating from the event in question. The landing of the French at Killala has been described from different points of view, but in the light of this letter we dare say the opinions of many people will undergo a change. It is, however, not our province to point a political moral or draw conclusions thereon. The letter, which was lent by J. G. Vesey Porter, Esq., of Belleisle, was as follows:—

"Dublin, August 31, 1798.

"MY DEAR LORD,—As you will probably be very anxious to hear about Ireland, I send you a few particulars of our unpleasant situation. On the 22nd, at seven in the evening, four French ships appeared in the Bay of Killala. It was visitation day, and the bishop so little expected an enemy that the gentlemen with him did not rise from table, and two of his sons took boat, and went on board them. The French landed 200 men, who were resisted for a few minutes by some Fencibles and Yeomanry, but two or three of the latter being killed, the rest threw down their arms, and the bishop with his family, dear Thompson, Dr. Ellison, and, I believe, one or two more of the clergy, were made prisoners. The French next day pushed on to Ballina, skirmishing all the way with the yeomanry and carabineers, of whom we lost George Fortescue and three or four more. The country being alarmed, the enemy pressed no further on that road, but advanced on the side of Sligo, and Mr. O'Hara, with the yeomanry of that part of the country, after some ineffectual resistance, prepared to abandon Sligo itself; but the French stopped short and retreated again to Killala; by this time their force was known to be under 1,800, with nine or ten pieces of cannon; their ships sailed away. General Taylor, from Enniskillen, secured Sligo and Boyle; Hutchinson, with the garrison of Galway, advanced to Foxford; Lake, with about 20,000 men and seven pieces of cannon, lay at Castlebar, and the Lord Lieutenant collected a considerable force at Athlone to support all the three. This was a very good plan, and we all expected to hear the enemy had re-embarked or been all taken; but they were better commanded than we expected, for before our troops could contract their circle so as to act in support of each other, the French left Ballina, crossed the mountains by Lake Con, where 200 men would have stopped their whole army, and fell suddenly upon Lake, with numbers nearly equal to his own. As the mountain road was so bad they could only bring two guns with them, and our artillery played on them as they advanced with considerable effect, but the Kilkenny and Kerry militia, from cowardice

or treachery, or perhaps both, took to their heels without firing a shot. Some say they were followed by a regiment of Scotch Fusiliers (The Frazers), but this has been since denied; it is, however, certain that our army retreated in the utmost disorder, with the loss of their cannon and baggage, to Tuam, and all Mayo is in possession of the French. Yesterday morning Lord Cornwallis was to advance from Athlone with 7,000 men, at least 4,000 of whom are British. It is quite uncertain what the enemy intend doing. Some think their point is Galway; others, that they will stand an action; a third party that they will push for Dublin. This much is certain, that if Lord Cornwallis receives a check, not only our property but our lives will be in great danger. The French were not joined before the action by any very considerable number of the Irish, but I fear they have increased their numbers since. We are also in fear of fresh troops from France landing every day in some other quarter; in short, you are a very lucky man to have all you love on that side of the water. Adieu! Our fate will be decided in a few days, or perhaps hours. As yet the country is quiet, and if we can master these fellows before they can get sufficiently reinforced the expedition will strengthen instead of hurting us; but we are by no means so sanguine as we were. The French officer is a man of great talents. Before the action of Castlebar he made his own troops and his Irish allies change coats, so the flower of the French army got close to our troops, while we took them for a set of ragganuffins. I am afraid he will prove too hard for us. . . . Yours faithfully,

"WM. CLOYNE."

Dr. Battersby presented a portion of a deer's antler, forming a dagger, found near Killarney.

The Secretary laid on the table parts 6 to 8 of vol. XXV. of the "Transactions."

The Academy adjourned until November.

### A LIFT FOR THE LIFFEY.

ANYONE who chooses to refer to the files of the IRISH BUILDER will find that the intervention in *re* the Liffey that has now taken place was predicted. Warnings, however, had no effect on our sluggish Town Council, the noisy members of which had other more personally profitable schemes in view. The letter of the Viceroy, and the explanation of the plans adverted to, which were given by Mr. Roberts, the Assistant Commissioner of the Board of Works at a recent meeting of the Corporation, we append below. As a purification scheme, of course it can only be looked upon as a temporary one, calculated, however, to afford relief to the citizens in the abatement of foul smells while the Main Drainage works of the city are being constructed. The navigation of the river will be to some extent interfered with, but not to a great degree; and, under the peculiar circumstances of the case, a temporary loss must be borne with for a great temporary gain.

It is almost needless for us to dilate upon the nature of the Liffey nuisance, as we have so often written upon the subject; and, in view even of a temporary respite from such an intolerable suffering, we would fain withhold all criticism as to the merits and demerits of the plans in question. After so many thousands of the public funds being shamefully wasted in sporting and jobbing with the Main Drainage of Dublin, what a reflection on our Corporation does not this Viceregal scheme cast! Should this measure of temporary relief be carried out and prove successful, we have little doubt—if the Government does not follow it up in accelerating the action of the Corporation—it will again fall back once more into the old rut, and the promised completion of our Main Drainage will be as far off as ever. Corporations that neglect their duty must be compelled to pay the penalty of their neglect.

The following letter, which was read at a special meeting of the Corporation, was addressed to the Town Clerk:—

"Dublin Castle, 22nd June, 1874.

"SIR,—Adverting to my letter of the 18th inst., I am directed by the Lord Lieutenant to acquaint you, for the information of the Municipal Council, that his Grace has felt it his duty specially to consider whether some plan might not be devised for

affording temporary relief from the intolerable nuisance caused by the present state of the Liffey; and he desires me to forward herewith the enclosed plan, which he thinks will effect the object in view at a small cost, and which further admits of rapid execution. His Grace requests that you will at once submit this plan to the Municipal Council, and he hopes that it may be accepted by them, and carried out with as little delay as possible. His Grace desires me to add that, if the Council are not prepared to accept his plan in a complete or modified form, and fail immediately to propose any other plan which will relieve the city from this nuisance, he will have to take into his consideration whether it will not become his duty to call upon the Local Government Board to exercise at once the powers vested in them under the Sanitary Acts, and make an order on the Council for the execution of the work within a limited period, and, if not executed within that time, to direct the Commissioners of Public Works to execute the work at the expense of the Council. In order to facilitate the consideration of his plan, his Grace has desired Mr. Roberts, the Assistant Commissioner of the Board of Works, to wait upon the Council, and explain to them all necessary details. In conclusion, his Grace desires that it may be distinctly understood that the plan which he now proposes is to be considered merely as a temporary expedient, and will not relieve the Council of the duty of expediting as far as possible the commencement of the important work connected with the Main Drainage of the city. —I am, sir, your obedient servant,

T. H. BURKE.

Mr. Roberts stated to the Council that the plan had been entirely suggested by his Grace the Lord Lieutenant, and was a temporary arrangement for preventing the escape of the offensive effluvia which now rises from the bed of the River Liffey during the time it is exposed at low water. The plan may be thus described:—

"To divide the section of the river into three steps or divisions by the erection of three weirs across the channel, so arranged in height as to impound behind each a sufficient depth of water to cover the entire bed of the river. The fall of the bed of the river between the points referred to is about 4½ ft., so that the formation of three weirs of about 2ft. 6in. or 3ft. in height will be sufficient to effect that object, and the fall at each will then be about 18in. With a view of guarding against the tendency of these weirs to accumulate silt behind them, and to prevent as far as possible their being an obstruction to the navigation of the river, it is proposed to construct them in the manner shown on sketch. The wings, or sides are to extend from the quay walls on each side in an oblique direction down stream, forming an angle of about 45 degrees with the quay walls, and extending to within 15ft. of the centre of the river, thus leaving a clear opening of 30ft., which it is proposed to fill in with falling sluices constructed on the principle of the barrages on the Seine, which can be readily closed or opened for current and navigation by means of a small barge fitted with proper appliances. They should be closed on the ebb-tide, a short time before the water falls to the level of the top of the weirs, and opened on the flood tide rising again to the same level. By this means the current of the river will be concentrated in the centre of the channel, and it will not be interfered with to any injurious extent, and there will be a clear centre opening of 30ft. for navigation, which should be defined by piles extending to above high water. The sides or wings of these weirs are to be formed of sheet piles driven a sufficient depth into the bed of the river, caulked and backed with a small quantity of rubble stone, packed on the down stream side to prevent the action of the water cutting away the bed of the river below and undermining them. To guard against the action of the current in the centre opening, it is proposed to construct a substantial floor of timber sheeting well secured to capping pieces fixed to the heads of piles, the space between which might, if necessary, be filled in with cement concrete. A strong timber cell is to be constructed across the opening, to which the sluices are to be hinged, and they are to be provided with proper appliances for lowering or raising them, and securing them to their position when raised. This temporary arrangement, or such modification of it as the nature of the foundations and section of the river may render necessary, is suggested as a simple and inexpensive manner by which the nuisance now so much complained of will to a very great extent, be prevented, until the proposed Main Drainage Scheme is carried out. It admits of being rapidly executed. Its total cost will not probably exceed £1,200, and there is every reason to expect that its execution will realize to a very great extent the object in view."



## A DIAGNOSIS WITHOUT A FEE.

THE medical journals of London should not be throwing their pearls before swine. The Corporation of Dublin is always willing to vote sums for legal and engineering opinion. It has at present more than two consulting lawyers and engineers, and with the free use of the public purse, we think it could very well afford, on the motion of some chimney ornament, to vote a sum to the editor of the *Medical Record* for the annexed diagnosis. The case, we must say, looks somewhat serious, and we fear we are to blame ourselves to some extent in encouraging so pronounced an opinion as that which is being indulged in just now by our medical and other contemporaries. We might have expected sympathy long since with our labour, long indeed before it came, but we did not expect that medical opinion could be had for nothing by the public in general and the Corporation in particular:—

"The abominable and poisonous stench with which the Liffey infects the air of Dublin may possibly be borne with a nearer approach to resignation if it may be reasonably hoped that the progress of the Public Health (Ireland) Bill in the House of Commons will not be checked by the obstructions which the Corporation of Dublin are interposing to its passage. The poisonous state of that gigantic sewer—for, as it runs through Dublin, the Liffey is nothing else than an open ditch, of which the water is thick with putrifying sewage—is a standing example of the manner in which the Dublin Corporation understands and carries out its sanitary duties. For years it has delayed, and jobbed, and quarrelled over the purification of the Liffey, and it wakes up to find that, while it has been delaying values have been rising. To purify the Liffey now will cost the ratepayers half as much again as it would have done ten years ago. All the sanitary affairs of Dublin have been managed in the same way. Three years ago, when the *British Medical Journal* sent over a Commissioner of Inquiry, he reported that fever patients were carried about the city in costermongers' carts, that the so-called disinfecting chamber was nothing less than a smoky cupboard, and that the whole sanitary administration was a mockery and a sham. The Dublin journals followed suit, and a voluntary sanitary association has been formed, which has forced the Dublin Corporation into some pretence of activity, but a very pitiful and hollow pretence. It is characteristic of their whole spirit in sanitary matters that their main ground of opposition to the Public Health Bill now is, that it does not give them enough of patronage in the posts to be created."

## THE HEALTH OF DUBLIN.

It will be seen from what follows that the death-rate still continues high, and that zymotic diseases are prevalent. Until an efficient scavenging system is carried out, and the main drainage of the city is completed, we cannot expect the mortality to go down very low. Constant sanitary inspections provided by the law, if resorted to, would work a marked improvement in a short time.

The deaths registered in the Dublin Registration District during the week ending 13th June, 1874, represent an annual mortality of 23 in every 1,000 of the population, by the census of 1871. In London the death rate was 18 in every 1,000 of the estimated population, in Glasgow 30, and in Edinburgh 22. Twenty-seven deaths were caused by zymotic diseases, and were classified as follows:—Fever 8 (2 typhus and 6 typhoid), scarlet fever 9, croup 3, quinsy 2, measles and diphtheria 1 each, &c. Nineteen deaths were ascribed to convulsions. Bronchitis proved fatal in 14 instances, and pneumonia or inflammation of the lungs in 3. Four deaths resulted from paralysis, 1 from apoplexy, 3 from epilepsy, 2 from brain disease unspecified, 9 from heart disease, 1 each from aneurism, liver disease, nephritis or Bright's disease, and cystitis or inflammation of the bladder. Phtisis or pulmonary consumption was the cause of twelve deaths, scrofula of 4, hydrocephalus or water on the brain and mesenteric disease of 1 each, and cancer of 3. Three accidental deaths were

registered—2 from fractures and contusions, and 1 from burns. Forty of the persons whose deaths were registered during the week were under 5 years of age, and 34 were aged 60 and upwards, including a woman stated to have been aged 90 years. Fifty-eight of the deaths registered in the Dublin Registration District during the week occurred in hospitals and other public institutions. Of this number 8 took place in the North Dublin, and 25 in the South Dublin Union Workhouse. In the Suburban District of Rathmines, the annual ratio was 7 per 1,000; in Donnybrook it was 19—the City of Dublin Hospital and the Hospital for Incurables are situated in this district; in Blackrock, 7; and in Kingstown, 6 deaths per 1,000 of the population by the census in 1871.

In the return for the week ending 20th of June, the deaths were 158—80 males and 78 females.

The poor and densely-populated districts north and south of the city show, of course, a great increase in deaths over other registration districts. This goes to prove the injurious effects of overcrowding, neglected sanitary duties, and the want of pure air and open spaces.

## ANOTHER COMPETITION, AND HOW IT ENDED.

We are given to understand that, in answer to an advertisement inviting designs for remodelling the County Court-house, Sligo, six architects sent in designs. Of these, two sent in three sets each—two for remodelling and one for an entirely new building. After a careful scrutiny by the building committee of the grand jury, three designs were selected for further consideration. On the last day of meeting, the committee came to the conclusion of abandoning the idea of remodelling the old courts, and, instead, of having an entirely new court-house on a new site, and to invite the architects who competed in the first instance to send in designs for the new building, a premium of £50!!! and one only, being offered for the best design in the first instance. The committee were at a loss to decide on the best out of the three finally chosen, and, considering each of the three to have equal merit, hit on the novel expedient of "drawing lots" for the prize. Mr. J. Rawson Carroll was the winner, and he accordingly becomes entitled to the £50. We do not find fault with the result; very probably Mr. Carroll is best entitled to the premium. We understand he had considerable trouble, having, along with several alternatives, submitted a design on speculation before the competition was announced at all. We would suggest to any committee in a similar dilemma in future, that it would be much fairer and more satisfactory to the profession if the aid of a *perfectly independent architect* was called in, charged with the duty of deciding on the most meritorious design, and the one best suited to the requirements; for, with all due respect to the committee, there were, in all probability, degrees of comparison between the three selected designs—at the same time we do not attribute the slightest partiality to the gentlemen forming the committee, who acted very fairly throughout.

## BOOKS RECEIVED.

*The Complete Measurer: setting forth the Measurement of Boards, Glass, &c., Round Timber, and Stone, and Standing Timber.* By Richard Horton. London: Lockwood and Co. Second Edition.

The office of the architect, engineer, building surveyor, or land agent that is without this excellent and useful work cannot truly be considered perfect in its furnishing. The tables are well arranged for reference; the wood-cut illustrations enhance the value to those only partially experienced in measuring. We can recommend the work.

## SALE OF WOOD GOODS.

By our advertising columns, it will be seen that Mr. Carvill intends to hold a clearance sale of wood goods to-morrow, at the Custom House Docks. The stock to be offered includes deals of various quantities and lengths; also cargoes of memel timber, pitch pine, &c.

## HOME AND FOREIGN NOTES.

A "daily" informs its readers that a new association, called "The Enniscorthy Union Ratepayers' Protection Society," has been established in that town for the purpose of protecting the interests of the ratepayers.

**CHURCH BUILDING AND RESTORATION.**—A return has been ordered by the House of Lords, on the motion of Lord Hampton, showing the number of churches, including cathedrals, in every diocese in England which have been built or restored at a cost exceeding £500 since the year 1840, and showing also, as far as possible, the expenditure in each case, and the source from which, in each case, the requisite funds were derived. Would it not have been well to have included in this return those belonging to Ireland up to the date of the "Disestablishment?"

**NORTHUMBERLAND HOUSE (LONDON).**—Cheques for the purchase-money of Northumberland House and the legal expenses connected with the transfer have been passed at the weekly meeting of the Metropolitan Board of Works. The Duke of Northumberland and Earl Percy receive £497,000 for the mansion itself; a further £2,000 is payable to his Grace for Nos. 2 and 3 Northumberland-court; the stamps amount to £2,500, and the solicitors accept £1,000 in full satisfaction of their costs.

## TO CORRESPONDENTS.

**A BUILDER AND SUBSCRIBER.**—Our correspondent is informed that no member of a public body, be it a municipal council, town commissioners, or a board of guardians, is permitted to contract or send in tenders to supply requisites to the body of which he is a member. He is supposed to represent the ratepayers and not himself. It is considered improper also for the son or relative of a member of a public body to send in tenders to a body where his father or blood relation will have a voice in the matter. The father should abstain from voting on such a question or expressing an influence in his character as a representative. It would not certainly be illegal for a son to send in a tender for work because his parent happens to be a member. If all is *bona fide* and above board, we do not see why the son should be debarred from a public competition with other contractors. In such cases, however, underhand dealings will always be supposed to exist, and as we said already, the father should abstain from voting in the question.

**W. B.—TRACING PAPER.**—The description known as foreign bank post makes a very substantial tracing paper, suited for coloring and tracing purposes. To prepare: brush as much benzine over the sheet as will render it quite transparent, and then immediately coat with a thin solution of Canada balsam, and hang up to dry; or a mixture of equal parts of drying oil and castor oil may be substituted for the Canada balsam—this latter is preferable when a high glossy surface is an objection. Tissue paper, if used, can be improved by being rubbed over on one side with a soft sponge dipped into made starch; of course the varnish must then be applied on the uncoated side.

**A BURGESS.**—The city accounts for the year ended August, 1873, have been published. A digest of them would be of immense advantage to the ratepayers at the present juncture. We, of course, shall have something to say about them hereafter.

**INQUIRER.**—We cannot answer your question as to the Mayoralty for next year. We understand the honourable position has been offered to Mr. Anthony O'Neill, T.C., but that gentleman has declined to fill the Chair.

**BRIDGE.**—When every item is totted, we believe the cost of works at Newcomen Bridge, will be under £2,000.

## PEMBROKE TOWNSHIP IMPROVEMENT.

The annual report of the Township Commissioners is reassuring in some particulars. Mr. John E. Vernon has been re-elected Chairman for the ensuing year, and, among other acts for the benefit of the township, Mr. Vernon has contributed £1,200 towards the erection of a new town hall. The subject of asphaltting the roadways has been considered, and the commissioners have already commenced to lay down the footpaths with that material on the Pembroke-road. The sanitary condition of the district appears to be good, but we will let the report speak for itself on the present occasion:—

"The valuation has risen from £76,575 to £77,519, being an increase of £944 within the year.



In the balance sheet the receipts and expenditure are set forth under their respective heads—the former amounting to £9,681 19s. 8d., and the latter to £10,188 1s. 3d.—leaving a cash balance of £1,503 18s. 3d. (subject to liabilities) to credit of the next account. The rates assessed during the past year amount to £9,062 5s. 6d.; of this sum and the arrears from the former account, £9,154 13s. 3d. have been collected; £118 4s. 7d., part of the arrears from 1870 to 1872 having, after careful examination, been found to be uncollectable, have been written off, leaving a sum of £208 19s. 9d. against £416 19s. 8d. outstanding since December, 1872; and at present date the balance on foot of the 1873 rate amounts to only £27 1s. 8d.; £527 6s. 5d. has been received from other sources. The expenditure under the heads of roads, kerbing, crossings, and carts and implements, amounts to £2,128 7s. 11d. The cost of the public lighting is £781 10s. 9d. against £814 15s. 2d. for 1872. Four new lamps were erected, making 299 in all on the 31st December. In the water department the expenditure has been £1,952 4s. 11d., which includes water rent, £1,103 10s. 2d. paid to the Dublin Corporation, and £661 6s. 8d. interest, &c., on loans to sundry parties; the mains have been extended where required. The outlay under the head of special works was £933 1s. 7d., £247 8s. being contributed by private parties. The commissioners invested in 3 per cent. stock to the credit of the sinking fund special account £557 4s. 9d. The sanitary condition of the township has improved much, and the health of the district continues good. The sum standing to the debit of the sinking fund special account at the close of 1872 has been reduced from £11,418 18s. to £10,861 13s. 3d. The balance to the debit of the suspense account has also been reduced from £84 16s. 6d. to £65 17s. 5d. The stock of materials, &c., paid for and on hands at the close of the account amounts to £754, against £550 former year."

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### ILLUSTRATION:

NEW ROMAN CATHOLIC CHURCH, BALLYOUGHTER, COUNTY WEXFORD.

### NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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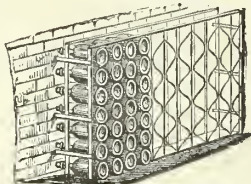
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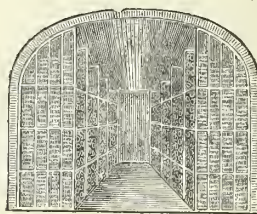
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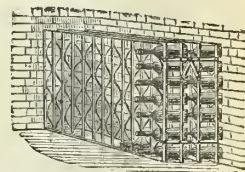
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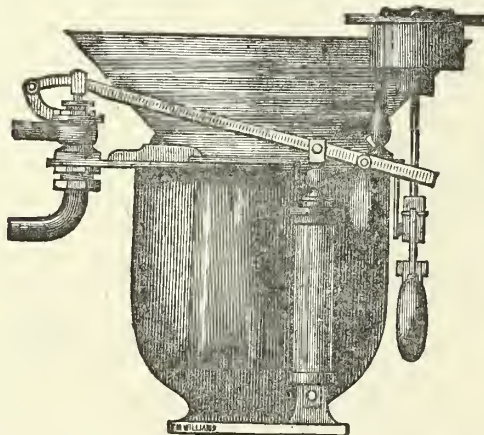
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# The Irish Builder.

VOL. XVI.—No. 350.

## Regular and Voluntary Sanitary Work.

**T**HE Report of the Executive Committee of the Dublin Sanitary Association has been issued and their second annual meeting held. Earnest volunteer work, in an educational and sanitary direction, is, or ought to be, always acceptable, but there are defects and difficulties inseparable from such labour. The labour after a short while devolves upon a few; subscriptions are grudgingly given; members decrease in number, or remain for a long time stationary, and personal interest is not manifested if there is not some indirect, if not direct, gain. In the formation of the Dublin Sanitary Association, a public and a professional benefit was, no doubt, anticipated by the promoters. It was established under medical auspices, and continues so; and, small as the platform has been, the organisation has worked the medical profession some good, in view of sanitary administration through sanitary and public health acts. We trust, however, that if the desires of our medical brethren are fulfilled, they will, notwithstanding, continue still to render whatever volunteer labour they can until the public health of the city is established and maintained on a firm footing. If public duties were performed as they should be, there ought to be no need for volunteer sanitary labour. We have now urban and rural sanitary authorities, and sufficient rates are levied to carry out an efficient system of sanitary inspection. If local bodies are supine and neglectful, there are central authorities to whom the heavily-taxed ratepayers can appeal, and the work required can be accelerated.

Sanitary administration is not, however, in proper gear or working order yet, and between the old and new systems patience must be exhibited and friendly aid accepted when offered. Recognised, responsible, and properly remunerated officers are, after all, essential to the preservation of the public health. They are appointed to do certain duties, they are paid for doing them, and if they neglect to do them, they risk dismissal. This constitutes the real value of a law-constituted body over a voluntary one. The public expects what they are taxed for will be performed, and performed efficiently.

As far as the work of sanitary inspection has been carried, the Dublin Sanitary Association is entitled to praise.

The body is at present composed of 250 members, but as yet only ten ladies have joined. We have long since pointed out the work that humane females blessed with means might perform in the way of visiting the homes of their poorer sisters. The income of the association for the year amounted to the small sum of £150 17s., and the expenditure was £142 2s. 5d., leaving a balance in the hands of the treasurer, which, added to the small balance of the previous year, shows a credit of £17 10s. 6d. in favour of the asso-

ciation. These are modest financial transactions, and deducting the costs of office stationery and printing, the fund to be devoted to strict sanitary inspection is not a large sum.

Weekly reports of nuisances have been forwarded to the Secretary of the Public Health Committee of the Corporation; 359 cases, comprising 519 distinct nuisances, have been reported, classed under the following heads:—Overcrowded houses, 10; houses unfit for habitation, 18; houses in a state injurious to health, 47 (in nearly all of these cases disease have actually occurred); insufficient ashpit and privy accommodation, likely to cause injury to health, 147; insufficient water supply, 6; defective sewerage, 74; filthy yards and archways, 118; manure heaps and accumulation of filth, 29; unscavenged streets and lanes, 50; animals badly kept, 20. Some of the above nuisances have been abated through the representations of the association, but many of the houses still continue as bad as ever. The report notices the inefficiency of the means at present existing for the conveyance of patients to hospital, and the efforts made to induce the Public Health Committee to provide better accommodation. We have ourselves often directed public attention to the matter. Two cabs are kept by the Public Health Committee at the Disinfecting Chamber in Marrowbone-lane, but no horses are kept there, and when the cabs are required, a journey must be made to Bass-place, off Denzille-street, two miles distant, where the cab-owner lives. Then a round of circumlocution has to be gone through in getting a certificate, fetching the horse to the cab, and the cab and horse to the patient, and then to the hospital. No one, indeed, need feel surprised that the law is violated under such a system, and that hackney cabs are used occasionally by stealth. The same defective and censurable arrangements exist in connection with the disinfection of infected articles. The van for the removal of the infected articles is kept by the Public Health Committee, and the horse is at Bass-place. The van is given gratuitously, but a charge of five shillings is made for the horse, and sundry other charges are made "to those who can afford it."

In respect to ashpits, privies, and the removal of house refuse, the Corporation recently projected a system in keeping with their other admirable arrangements. Ten shillings were to be deposited at the City Hall by any citizen requiring an ashpit cleaned, if situated within the city. The charges made were at the rate of six shillings for the first two loads, and two shillings and sixpence for each load after the first two, but in no case will less than six shillings be charged. Of course, very few availed themselves of these prices, which were fairly prohibitory. The report of the Sanitary Association says on this:—

"These rates are so excessive that your committee believe that but few, if any, of the citizens have availed themselves of the arrangements provided by the Corporation. The charges may, in fact, be shown to be virtually prohibitory by considering their operation in the case of tenement houses. There are 9,000 tenement houses in Dublin, and, according to the rule laid down by the Public Health Committee, the ashpit of each of these houses must be cleansed once a-month. This would amount to £3 12s. per annum for each house, so that the total cost of cleansing the ashpits of Dublin would amount to £32,400 per annum. As there are in all 23,896 houses in Dublin, the total cost of the cleansing of ashpits at the rates charged

by the Corporation could not be less than £60,000 per annum, or over two shillings in the pound on the valuation of the city. A member of your committee has ascertained that he can have a large ashpit, in not a very convenient position, cleansed at the rate of less than 2s. per load by private agreement, and of this sum only 1s. per load is spent on cartage. In London and in nearly all the large towns of England the cleansing of ashpits is undertaken by the authorities free of charge, and the expense, after deducting the value of the manure sold, which in many cases is very considerable, is defrayed out of the public rates."

In admitting, as we have already done, that the action of the Dublin Sanitary Association has been productive of good, we cannot close our eyes to the fact that, as a voluntary association, and only supported to the extent that it is, its labours, should it continue to exist, must of necessity be very circumscribed. As was to be expected, the association, from its own standpoint, has taken a great interest in the progress of the Irish Public Health Bill. In the present report, it details its efforts at some considerable length, nor does it forget to instance the contributions of its professional brethren on the Press. "The Irish Conjoint Committee on Sanitary Legislation," we may be pardoned for saying, confined its labours solely to what concerned the profession, apart from the grievances of the general public, but in doing this it only acted up to the principles of the first law of human nature. If one does not first take care of himself he will be unable to take care of any one else.

The Irish Public Health Bill, in its amended form, needs further amendments. In looking over it, it cannot be said the medical profession are left out in the cold. In the matter of sanitary inspection, it puts duties on the shoulders of medical practitioners which they cannot bear, and must of necessity be borne for them. There have been party cries in all ages, and doctors and lawyers have differed centuries before bills of health or bills of mortality were published. It has taken a long time to make the world listen to reason and common sense, but we live strong in the belief, and will die equally so, that the day is not far distant when the right men will have to be put in the right places, and scientific and practical engineering knowledge availed of and utilised in the interests of human and public health.

## PUBLIC WORKS IN IRELAND.\*

THE services entrusted to the management of the Board of Public Works are various and important, and in their judicious performance depends to no small extent the material prosperity of the country. Capital creates capital, but often money that is easily obtained by public bodies as well as individuals is most unwisely expended. The advances made by the Board of Public Works are in general pretty well secured, whether it be in aid of railway improvements or to help corporate or similar bodies to carry out schemes in connection with sanitary matters, or other towns improvement purposes. In this city every well-informed citizen is aware that nearly all the rates are mortgaged in one direction or another as security for loans, and even still our Corporation, through systematic bad management, are unable to

\* Forty-second Annual Report from the Board of Public Works, Ireland. Dublin: Alexander Thom. 1874.



perform urgent works, unless on their own showing they obtain additional borrowing powers.

During the past year (1873-4) loans have been sanctioned through the Board of Works out of the respective funds for the following among other objects:—Local boards, for improvements, £10,300; railways, £26,666; harbours and docks, £9,719; fishery piers, £157 (a small sum, indeed); labourers' dwellings in towns, £22,250; glebe loans, £24,356; river drainage maintenance, £1,542; river drainage by local boards, £23,891. Under the Land Improvement Act—For improvements in thorough drainage, farm buildings, labourers' dwellings, fencing, planting, &c., £139,881. Under the Land Act—For the purchase by tenants of their farms, £49,130. Total sanctions on all services being £307,000, as against £298,796 on previous year. A number of applications for loans for special objects have been entertained, such as improvements in towns or districts by local boards, advances to railways on security of debenture stock, and to harbour boards for extending and improving commercial harbours and docks. Under this head during the previous year sanctions have been made as follows:—The Corporation of Wexford, for purchase of ground for erecting a public market, £500; Sir Thomas Lennard, Bart., for building a butter market in the town of Clones, two-thirds of the estimated cost of the works, £800; Enniskillen Borough Commissioners, for improvement of streets, sewers, &c., £4,000; Town Commissioners of Dungannon, for completing market house and town hall, £200; the Guardians of Glenamaddy Union, for enclosing burial grounds, £300; the Guardians of the North Dublin Union, for additional buildings to be used as part of the workhouse, £4,500; the Southern Railway Company, £26,666; River Moy Commissioners, for improvement of their river, £5,719; Galway Harbour Commissioners, for improvement in the port, £4,000. The following further applications for similar objects are under considerations:—Galway Harbour Commissioners, for works connected with the entrance to the dock, £3,500, and for constructing a graving dock, £8,000; Town Commissioners of Youghal, to repair public quays and to erect a public market, £1,500 to £2,000; Banbridge, Lisburn and Belfast Railway Company, £49,000; the Poor Law Guardians of the Dungarvan Union, for building a fever hospital, £1,600; the Poor Law Guardians of Castlebar Union, for building a dispensary dwelling for the medical officer at Lahardane, £400; the Waterford and Wexford Railway Company, for line from Waterford and Wexford Railway, Wexford, to the harbour in course of erection at Roslare, £26,700.

It will be seen that the above applications are mostly for objects of a very necessary and commendable nature. Doubtless when the Irish Health Bill comes into operation there will be a great increase in the applications for loans for sanitary and reputed sanitary purposes. Under the Sanitary Act of 1866, with which is incorporated the Sewage Utilization Act of 1865, applications have been made for loans for water supply and sewerage for towns; but it has been decided that it is not desirable to make these loans, inasmuch as the Board are called on to administer these acts in another capacity. It appears that greater advantage

has been taken of the acts 29 and 30 Vic., for providing dwellings for the labouring classes in towns than in any previous year since it came into operation. It is cheering to hear this, and we trust that still greater advantage will be taken of these acts, and that the loans will be wisely and economically expended in the construction of stable and well-planned sanitary dwellings. Seven loans have been made, amounting to £22,250, which will provide 261 separate dwellings in Dublin, Belfast, Cork, Omagh, Gorey and Armagh. Under the several Land Improvement Acts, the Board's operations exceed those of any year since 1852. The present year shows an increase of £139,370, as against £96,748 in 1872-3. Applications on the part of tenant farmers for loans to aid in the purchase of their holdings show a considerable falling off. This is to be regretted, as unfavourable conclusions as to the prosperity of a country might be drawn from this fact.

The total loan advances made during the year amounts to £233,498, as against £182,012 of the previous year, and the repayments, including principal and interest in the same period, was £144,989, as against £151,810.

Coming to the subject of public buildings, we find that extensive alterations are reported in connection with the Belfast Post-office and Telegraph Service, that a new Post-office at Limerick, in which the Postal and Telegraph Departments are accommodated, is nearing completion, and that additions contemplated in respect to the Cork Post-office have been unavoidably deferred, owing to delay having occurred in obtaining possession of adjoining premises. New Customs buildings intended to be erected at Waterford will be shortly commenced, and the proposed public offices at Londonderry will, it is expected, be commenced this present year. A new constabulary barrack has been completed at Carna, county Galway, and others are in progress at Cahirciveen, county Kerry; Farmhill, county Mayo; Kilmouse, ditto; Kinnewry, ditto; and at Emly, county Tipperary. Several metropolitan police buildings have undergone repair, and at Lad-lane considerable addition to the buildings there are reported to be in progress, and also at Kevin-street Barrack, where extensive improvements are being carried out in the stabling.

The general work necessary for the conservancy of the Phoenix Park and the cultivation of the People's Garden has been attended to as usual.

New coastguard stations have been completed at Derkmere, county Sligo; Grey-stones, county Wicklow; Seafield, county Clare; and Rush, county Dublin. Works are in progress at new stations at Ballycastle, county Mayo; Mill Isle, county Down; Ballygally, county Antrim; Killough, county Down; Tramore, county Waterford; Youghal, county Cork. Additions and alterations have been made at Ardmore, Bar of Lough, Ballycotton, Ballyheige, Castletownsend, Crookhaven, Curranspoint, Knockadoon, Kells, Lambay, Rochespoint, Sutton, and Teelin. Tenders have been obtained for building new stations at Cahirmore, county Cork; Gortrumma, county Galway; Moville, county Donegal; and Port Ballintrae, county Antrim.

The Queen's Colleges have been kept in their usual state of maintenance and repair. In regard to National Education buildings,

thirty-five new ordinary school-houses have been built in the past year, at the cost of £11,705 14s. 1d., towards which the board paid as grants two-thirds of that sum, the remaining third being contributed by local persons interested in the schools. If ever the School Board Act—i.e., the Elementary Education Acts of England—is capable of being applied to Ireland, we may expect to see all these Irish National School buildings superseded, and perhaps converted into labourers' dwellings. Their sites, in many cases would not answer for the erection of the improved class of School Board schools now erecting in London and other parts of England. There is one thing, however, in connection with the English School Board system which ought to be applied at once to this country—the principle of compulsory education irrespective of the creed of the majority or minority of the population. In building additions, improving, and providing other requirements in connection with 21 ordinary national schools, the sum of £1,403 9s. 3d. has been expended, towards which the board contributed £935 12s. 10d., the remaining third being borne by local persons interested. In addition to this outlay, the board have expended on new works and alterations, repairing, and maintaining the Metropolitan or Central Model School Buildings, the District Union Model and Model Agricultural Schools, the sum of £5,509 1s. 7d., and a further sum of £1,740 11s. 5d. for furniture for these buildings, and on the ordinary literary national schools in charge of the board, a sum of £2,628 10s. 6d. for maintenance and repairs.

In the matter of harbour works at Kingstown, on the Victoria Wharf a large open shed, with slated roof, has been erected for the shelter of the military and their baggage which are landed and shipped from this wharf. Progress is also being made with the dredging of the harbour, and the pitching of the sea slope at the back of the Western pier-head is completed. At Howth Harbour, repairs of the damage to the pavement of the outside slopes of the piers have been continued. Repairs have also been effected at Donaghadee Harbour, county Down; and repairs at Dunmore Harbour, county Waterford, are being proceeded with, as well as dredging operations.

A large number of memorials were received during the year for grants towards fishery piers and harbours, but we are sorry to see that so small an amount has been granted in the furtherance of what involves a great national resource. The Treasury have only sanctioned a grant for Port Oriel, Innisboffin, and Innishark. The works are in progress in the last-named places. Tenders were received for Giles's-quay, county Louth, but it appears by the report the work was beyond the means at the board's disposal, so they communicated with the promoters as to providing the excess, and a new memorial having been lodged for a reduced plan, the grant was obtained accordingly. Progress is being made with the works at Buucrana Pier, county Donegal, 120 lineal feet of the pier and 430 lineal feet of the approach road to the pier are nearing completion. The work of Glin Pier, county of Limerick, and Courtmacsherry, county Cork, are also reported to be fairly progressing.

We will reserve a notice of some important matters contained in the appendices until our next issue.



## LIFFIANA.

THE question of the unsanitary state of the Liffey is becoming so notorious that our heading is likely for some time to become a standard one. Up to the time of writing, nothing practical has been attempted, either by the Corporation or the other boards who are supposed to be concerned. The legal opinion has been again enlisted by our city magnates, and Mr. Gerald Fitzgibbon, after a rummage among a number of forgotten statutes from the days of Queen Anne to the days of the third George, has succeeded in enlightening the Corporation on the amount of fog that envelopes a very plain question. In addition to the plan proposed for the purification of the Liffey by the Lord Lieutenant, Mr. Henry O'Hara, Mr. Frederick Hamilton, and Sir John Arnott (through Mr. Walker, C.E.) have submitted their several plans, some of which we have already alluded to. Sir John Arnott's offer to cleanse the 'Liffey at his own expense, though a generous one, should not be accepted, for more reasons than one. No private citizen has a right to undertake duties devolving upon the Corporation empowered by law to execute these duties, and who have already taxed the city for the work, and have shamefully and basely expended the fruits of their taxing powers. The acceptance of such an offer on the part of the Corporation of this city would be sufficient to make an honest man's blood tingle for very shame. We have reached the dregs of public spirit if such a thing became possible, and those of our representatives who could be parties to the acceptance of such an offer, ought to be scouted from every public assembly in our city.

The executive of the Local Government Board can set the requisite machinery in motion without much delay for the purification of the Liffey, without a private citizen having to step in to do the work. Sir John Arnott's plan (*i.e.*, Mr. Walker's plan) has, however, been proved impracticable by Mr. Bindon Stoney, the engineer of the Port and Docks Board. The result of the deputation on Thursday last with the Port and Docks Board left matters pretty much in the same state as previously. The board has, indeed, offered the Corporation the use of their barges in cleaning the foreshore of the river, but this would be only a poor mitigation of the evil. The Corporation are ready to accept any excuse to delay the work, and they would not hesitate to expend some hundreds of pounds more in litigation on the question, sooner than begin the work that devolves upon them, and which eventually they will have to perform. The big Main Drainage job is not lost sight of amidst all the wrangling, and there still exists a clique of jobbers and bill promoters, who will not die easy until they pocket their long-yearned-for commission money on the head and tail of Messrs. Bazalgette and Neville's darling scheme.

The remarks of Mr. Vereker and Mr. Dennehy in the Corporation last week were to the point. The former very truly said that the expense attending the promotion of one of the Corporate schemes in Parliament would more than pay the whole cost of the purification of the Liffey; and equally true was his remark in reference to the designs of the wire-pullers in the Town Council—"It would be a public misfortune if the Liffey should become pure, because then 'Othello's occupation would be gone.'" "At present," observed Mr. Dennehy, "there was not a department in the Corporation that was not in a state of insolvency." Brought on by whom?—by a set of systematic speculators and parliamentary loafers, who were paid for living or spending the most of their time in London at hotels and clubs situated between Ludgate Circus and Victoria-street. Aye, aye, these are the importunate fellows who are enjoying the fruits of private bill legislation and promoting litigation. What incarnate scamps are there not in the Town Council of Dublin, and among them men who believe in one creed and preach another, while

at the same time they keep rattling the bones of the saints for the edification of the many. These are the men of whom Alexander Pope sung—

"Calm-thinking villains, whom no faith can fix,  
In crooked councils and dark politics."

We are not certain that we quote the poet's lines aright, but those interested in the subject can look up the verse.

"The handwriting is on the wall," said a certain member; verily, it is, but it points towards a different vanishing point than what that oracle indicated. The days of the constitution of the "Reformed Corporation" are numbered, and the sooner they are relieved from the trusts they have betrayed, the better will it be for the interests of public morality, public health, and the commercial prosperity of the city of Dublin.

## RECOLLECTIONS OF OLDEN TIME.

THE DUBLIN VOLUNTEERS' PARADE,  
4TH NOV., 1779.

THERE is at Carton, Maynooth, a magnificent painting, which, as a work of art, might well grace the proudest gallery in Europe, and its associations in connection with the past render it an invaluable heritage to the noble family of its proprietor, while to Ireland and to Irishmen it is a more than interesting record of one of the most remarkable epochs in Irish history. It is not our purpose to enter upon the formation or objects of the Irish Volunteers—both are ably given by Thomas McNevin in a volume published by Duffy, Dublin, 1853\*—we refer to the picture only as a work of art, admirably treated by its painter, Wheatley, and the more to be appreciated because of the truthful delineations it conveys in its portraiture, being an almost living, speaking embodiment of many celebrated men of the past century who made themselves actively conspicuous in the history of their country.

This picture, originally painted to the order of his Grace the late Duke of Leinster, was exhibited in the National Portrait Gallery of the Dublin Exhibition, 1872, and is thus described in their catalogue:—

"611—The Dublin Volunteers' Parade, 4th November, 1779, in College-green. Portraits of the Duke of Leinster, Colonel 1st Regiment; Sir Edward Newenham, Colonel 2nd Regiment; and the Right Hon. Luke Gardiner, Colonel County Dublin Light Horse; Messrs. Crosbie, Tisdall, Armit, the Right Hon. David La Touche, and John Fitzgibbon, &c., in the cavalry. Messrs. W. Porter, Long, Moncreiff, J. Napper Tandy, Jasper Jolly, &c., in the infantry. Captain Schonberg, R.N., commanding royal yacht, and Princess Dackshaw, Lady of Honour to the Empress Catherine (in the window)."

It represents College-green in the olden time. The Duke of Leinster stands in front of the statue of King William; Trinity College with its towering dome (now removed) appears in the rear; College-green, looking from Dame-street, with its antiquated gables and the Parliament House, shows on the left, while a large body of armed Volunteers, horse and foot, with cannon and banners displayed, fill up the centre.

Two engravings from it have been published in London, 1784, both now, as book auctioneers' catalogues describe them, "extremely scarce," therefore they bring a long price. The larger plate is 25 x 18 in., the smaller, 18½ x 10 in. There is also a key, a modern lithograph, showing the outline of the picture, and numbers over the portraits, as we have already given from the Dublin Exhibition catalogue.

In the Dublin *Freeman's Journal*, Nov. 6, 1779, the scene from which it was painted is graphically described. Many, very many, of

\* We are in possession of a large engraved copy of the above historical painting. We may add here that the first edition of McNevin's "History of the Volunteers" was published in 1845.  
—ED. I. B.

our readers have never seen either the original or the engravings. The picture is an heirloom in the Fitzgerald family, and now only to be viewed at Carton. There are few of the engravings extant—indeed only to be met with in the collections of those who value reminiscences of Old Dublin.

W. H.

## THE SOIRÉE OF THE BRITISH INSTITUTE OF ARCHITECTS.

THE annual *Conversazione* was held at the rooms in Conduit-street, London, on the evening of the 8th inst., and was largely attended. The guests were received by the President, Sir Gilbert Scott. Several works of art were exhibited, including sea studies, landscapes, snuff-boxes, needlework, chimney-pieces, Silhouette figure designs, oil studies, Venetian glass, and numerous architectural drawings and sketches by members of the Institute. The band of the Coldstream Guards played a selection of music during the evening.

## "PROGRESS IN COLERAINE."

THE local *Chronicle* of Saturday has an article enumerating recent building operations in Coleraine, from which we glean a few notes:—"If building enterprise be any proof of the prosperity of a community, the inhabitants of Coleraine may well be proud of the position it occupies among the rising provincial towns of Ulster. Whole streets of neat and commodious dwelling-houses have broken new ground, or the sites of old houses have been occupied by new and substantial erections, suitable for the superior classes of artisans, and working-men. The want of these had long been felt, and now that the demand for them has to a great extent been met, and that the humbler classes of labourers and factory and mill-hands have been enabled to secure better and less crowded lodgings, the gratifying fact of the town being in a very healthy state is not in the least surprising. But it is in the higher grades of commercial enterprise, and in the laudable ambition of our wealthier merchants to beautify the environs with handsome villa residences, that the progress of Coleraine may be most pleasingly noted. There has just been completed in Bridge-street a suite of warehouses and stores, which for beauty and utility of design, and capacity, are unique in Coleraine, and are only equalled by some of the best business establishments in Belfast or Derry. The building, which occupies an excellent site on the north side of Bridge-street, is three storeys high, with basement and attic, the latter lighted by handsome dormer windows. Stewart Hunter, Esq., the proprietor, has spared neither pains nor expense in its erection, nor in the elaborate fittings of its interior; whilst the storage accommodation at the rear is most ample and complete. Some months ago we noticed briefly one after another of the handsome suburban residences built and owned by the most successful of our business men, each one seeming to vie with his equally successful brethren in trade in the style and dimensions of his semi-country seat. The latest addition is a most picturesquely-situated house in the Elizabethan style of architecture—"Holme Lea," which has been erected by Edward Gribbon, Esq., of local power-loom celebrity, on a gently-sloping elevation on the west bank of the River Bann, and at a spot where it and the beautiful grounds by which it is surrounded form the apex of an obtuse-angled triangle, the base of which is marked by Breezemount, the family residence of Stewart Hunter, Esq., on the south, and the Manse of the Terracrow Presbyterian Church—both fine buildings—on the north. The principal apartments are spacious, with lofty ceilings. Every appliance for comfort and convenience have been introduced, so that household, home-like ease has not been sacrificed to external beauty in this, one of the most charming residences rising round Coleraine."



## RAIN AND WATER SUPPLY.

A VERY useful and timely circular has been issued by the Local Government Board to the sanitary authorities throughout the country, pointing out the dangers to be apprehended from the long continuance of dry weather, and the probable deficiency of water throughout the country. The sanitary authorities are reminded that, where water companies do not exist, they are empowered by the Public Health Acts to take the necessary steps for providing a proper supply of wholesome water for domestic use, flushing the sewers, and other necessary purposes. Especial stress is laid upon the matter of quality and source of supply, and it is urged that no liquid polluted by animal or vegetable matter should be employed, and that even less deleterious impurities should, in any case, be removed by filtration.

It is hoped that the Corporation of this city will at once act upon this advice, and see that the poor have their proper supply, without indulging any longer in croaking about a water famine. Our ears have been dinned lately by this shibboleth, got up by parties in this city to blind the ratepayers to the real issue that lies between the Corporation and the citizens. Surely our waterworks have been costly enough to afford us an ample supply, and it is positively sickening and shameful to be harping upon the cry "waste" and "water famine," while the poor in several districts of this city have not sufficient for the domestic purposes of cleanliness apart from what they absolutely require for drinking uses.

## PUBLIC RIGHTS AND PUBLIC NUISANCES.

## CONCERNING STREETS, BUILDINGS, AND OBSTRUCTIONS, ETC.

## NINTH ARTICLE.

ONE would suppose, on viewing the evidences of sanitary neglect in this city, that there was no sanitary act in force, or corporate or other power entrusted with the care or management of the streets, river, or sewers. A contemplative mind would be first amused and anon amazed at the coolness displayed by everybody around him, and if this contemplative person were a perfect stranger to our city his wonder would be increased. He would naturally ask if the citizens felt contented, and if they considered it a great privilege to be allowed to pay taxes at the rate of 10s. in the pound for the purpose of letting the natural adjustment of things take place. A little further inquiry would convince the contemplative stranger how matters stood; and, while disposed to strongly stigmatise the wanton neglect of the local authorities, the somnolent and stupid ratepayers would come in for no small animadversion for their obvious neglect of public duty.

Considering the taxation of Dublin, none of her leading streets at least should be in bad condition or out of repair, and an accumulation of filth should be an impossible occurrence. The law in respect to streets out of repair stands thus—If any ratepayer is aggrieved by a street being out of repair or improperly cleaned, he should make complaint in writing to the clerk of the sanitary authority, for if it be a public road it is the duty of that authority to have it put in a proper state of repair out of the public funds; if it be a private street, then the authority should call upon the owner to do the necessary work. In case of default after due notice has been given to the local authority by written complaint, a memorial should be addressed to the Local Government Board soliciting their interference. In this way strict attention will be secured for local matters and enforced on the sanitary authority.

By the Public Health (Ireland) Bill now before Parliament, it becomes the duty of urban authorities to cleanse streets, privies,

and ashpits. If any sanitary authority fails in doing so, without reasonable excuse, within two days after notice in writing from the occupier of any house situated in the district, the sanitary authority shall, on summary conviction, be liable to pay the occupier of such house a penalty not exceeding ten shillings for every day during which such default continues after the expiration of the said period of two days. Keeping the streets and roads in repair may either be done by the servants of the authority or by the contractors appointed and paid by the local authority, who may contract either for scavenging alone or conjoined with removal of ashes and refuse from dwellings, which should be carefully and systematically performed. Likewise, the work of re-flagging, paving, curbing, channelling, &c., may either be done by day work or by contract, but no contract for any sum amounting to £100 can be accepted without giving ten days' public notice, and inviting tenders for the work.

The ratepayers should always insist upon these provisions being observed, for it has often occurred in this city that jobs were given to contractors without any public competition—in fact, jobbed away. On the other hand, there have been instances where the public advertisement was a mere pretence, the work being *managed* for a certain favourite before the tenders were advertised for.

In respect to gas, water companies, pipes, &c., statutory powers are given, much similar to those given to sanitary authorities, to deal with the property belonging to those companies. It resolves itself into a general power to do what is necessary in the public interest, doing as little damage as possible, and not permanently interfering with the flow of gas or water, &c. Obstructions in the streets and nuisances are provided against in the sanitary acts, and particularly by the Town Police Clauses Act, 1847, which inflicts a penalty of 40s. or imprisonment for fourteen days for offences which cause obstructions, annoyances, or danger to the residents or passengers therein. The Towns Improvement Act also provides against obstructions. Insecure or dangerous buildings are also one of the matters that devolve upon the local authority, who are given power to require owners to take down or secure buildings, walls, or anything affixed thereto which are in a ruinous or dangerous state, and the surveyor may at once put up a hoarding or fence for the protection of passengers. In such cases the expenses fall upon the owners, who may also be indicted for a public nuisance if there is any danger of the building, &c., falling on the public highway. Where houses exist which are dangerous to the public health, it devolves upon the medical officers of health to report, and the local authority are bound to see them put into such a condition as will make them fit for habitation without injury to health.

Under a rural authority in rural districts, roads will remain as to their government in the same position as before the passing of the Public Health Act, but as the rural authority is both the sewer and the nuisance authority of the district, they are invested with ample powers to provide for the health of the inhabitants. Though it cannot make stringent bye-laws such as would be applicable to streets in the crowded thoroughfares of a town, yet in all the particulars necessary to preserve the road in a sanitary state it has sufficient scope and authority.

The maintenance and repair of roads and streets is a most necessary and important duty, and it should be one of the first exercised on the part of the sanitary authority. They should put in order, and afterwards keep the foot and carriage ways of the district in thorough repair and in a cleanly condition by watering, removing obstructions, and clearing any filth, dust, snow, &c., and they should do this not only for the direct advantages necessarily following in view of the health of the district, but also for the purpose of impressing upon the inhabitants

the duties that devolve upon them in preserving the inside of their houses. If the sanitary authorities properly perform their duties on the streets without, no excuse will remain for the owners or dwellers of the houses to neglect their obvious duties within. A dwelling within may be a plague spot though the street without is thoroughly clean; and otherwise, a street or court, from the foul condition of its surface, or from the defective nature of the sewers beneath, may be sufficient to breed a pestilence. There can be no safety for the public health unless both streets, courts, dwellings, and sewers are kept in a fair sanitary condition, and this can only be effected by constant supervision. In connection with this, the water supply must be copious and pure, and a proper system of ventilation secured for all buildings and structures used for human habitation. Indeed, the necessity of ventilation is apparent for buildings of all kinds, whether they contain goods or living creatures. Ventilation is no less requisite for the preservation of the building itself, for dampness and dry-rot are most active agents, it may be said, in the wear and tear of timber, stone, and other building materials.

## THE INFLUENCE OF SOIL ON CHOLERA AND OTHER DISEASES.

THE influence of different kinds of soil in assisting or retarding the progress of cholera has been elaborately discussed at a recent meeting of the Académie des Sciences. In the series of papers appearing in these pages on "Public Rights and Public Nuisances" the matter was incidentally touched upon, and the researches of Herr Pettenkofer, of Munich, has been engaged in making researches on the subject, and the results of his investigations show at any rate a curious coincidence between certain kinds of soil and the spread of the disease. For the purpose of proving the correctness of his theory, M. Decaisne has applied himself to the examination of the sanitary conditions of three large towns of France—Lyons, Versailles, and Paris. It is well known that the two first-named cities have always resisted the attacks of cholera. The disease has never laid strong hold upon them, and M. Decaisne not unnaturally seeks for some explanation of this comparative immunity which these towns have enjoyed. On the other hand, Paris yields itself an easy prey to the ravages of the epidemic, and seems rather to attract than repel its visitations. Accepting these well-established facts, M. Decaisne finds what he conceives to be their explanation in the different character of the soil underlying the three towns. Versailles is built on a bed of clay, impervious to water; Lyons stands upon granite; while Paris is constructed upon a porous foundation. Of course M. Decaisne does not attribute the presence of cholera to this fact alone, but his arguments are directed to show that it may act as a powerful influence.

The subject, we may remark, is not by any means a new one, for the influence of soils in producing diseases has been long since discussed. In an article in the *Anthologia Hibernica* for January, 1793, on Scurvy, we find the following remarks:—"The atmospheric air is constantly composed of heterogeneous particles, especially putrid ones, from animal, vegetable, and mineral substances, which being received into the blood by means of the lungs contribute as much to its corruption as the vital air to its purity. The salutary effects of the common or atmospheric air, depend in a great measure on local circumstances, and in none more than the soil of the country. Calcareous soils, from their qualities of attracting the aqueous particles from the air, would, if the body of that element was confined, render it dry, but from the same quality attracting the watery clouds and vapours floating therein, render it damp. Argillaceous soils, on the contrary,



have a tendency to impregnate the atmosphere with too much essential oil, which, rendering the blood unctuous, produces a poor and watery scurvy, by discharging the blood of its aqueous parts. Silicious soils, from their affinity to alkali, have a tendency to impregnate the blood with that salt, which, rendering that fluid too thin, destroys its tenacity, and not having a sufficient supply of fixed air, the body becomes emaciated and weak. Mixed soils, therefore, like mixed aliments, are the most proper for the support, not only of the vegetable, but animal creation. A due proportion of calcar, silex, and argil, seems to be productive of the most salubrious air for the support of both animal and vegetable life. But, as among plants, different species require separate soils, so in the animal economy much depends on the constitution of individuals."

This extract is sufficient for the present to shew that the influences of soil in assisting and retarding disease, has been long since thought of. We might have produced further evidence from older channels at home and abroad, proving that the subject has long since been ventilated. The renewal of the discussion is, however, desirable, as some sound conclusions may be arrived at, not only in regard to the generation of cholera, but other diseases.

#### EARLY NOTES ON HEALTH AND SANITATION.\*

THE Scriptures afford us some of the earliest allusions to sanitary requisitions. The Jews buried their dead outside the cities, and the Romans were forbidden by an express law of the Twelve Tables to bury their dead in the city:—"Hominem mortuum in urbe ne sepelito, neve urito" (Tab. x. lib. 12). Salutiferous cleanliness was enjoined by the ceremonial law, in Deut. xxiii. 12, 13. Linnæus, in his "Amœnitates Academicæ," mentions several instances of smells being noxious or poisonous, specially noticing the bilge-water in ships, and the dung and filth of great cities. The Turks, as well as the Jews and Romans, at one time studied cleanliness in person and home, by getting rid of substances that poisoned the surrounding air. The *London Magazine* of 1765 instances an excellent regulation in Paris not yet imitated in London:—"All the slaughter-houses in Paris have been removed to the Isles des Cignes below the capital; before which time the butchers used to slay and prepare their meat in one of the most populous quarters of the city." The principle of establishing regular abattoirs was recognised in Paris in the middle of the last century, and acted upon in the first decade of the present century. In 1765 also burials were forbidden within the walls of Paris, except a considerable fine was paid. Dr. John Rutty, in his "Natural History of Dublin," published in 1772, writes,—"The mischiefs of stagnating air, especially when loaded with putrid steam, have been abundantly shown by physicians in the generation of the low putrid fevers, and particularly by that great friend of mankind, Dr. Stephen Hales, who, with indefatigable zeal, has introduced his ventilators into our prisons, hospitals, ships, &c., to the preservation of many a life; and were it not for the benefit of the natural ventilations above mentioned, undoubtedly this city [Dublin] would be far more unhealthful than it is, though the ill effects of such an air in close weather in the summer, and even in open windows, especially among the poor, are too apparent." That good scavenging and watering of the streets improve ventilation there can be no doubt, and this was understood in Holland long since, for in Amsterdam and other cities the streets were cleaned every morning before nine o'clock,

by the dirt carriers. In the civic records of the city of London, in the thirteenth, fourteenth, and fifteenth centuries, royal orders, and several municipal ones, will be found for cleansing, and the preventing of nuisances and the poisoning of the air of the city, or of the waters thereof. Orders were even issued against infected persons or lepers entering the city, or leaving their lazaret-houses, which were situated outside the town, at Hackney and other places. In 45 Edward III., 1371, a royal order was proclaimed for the preventing of the slaughtering of beasts within the city of London, in which are detailed the abominations and stench that had arisen from the practice. It was ordered that all oxen, sheep, swine, and other large animals, should in future be slaughtered at the village of Stretteford, on the one side, and Knyghtebrugge, on the other [Stratford-le-Bow and Knightsbridge].

Antoine Gouan, National Professor of Botany in the School of Health at Montpellier, addressed to the National Convention a paper containing the result of some experiments made by him on the "Preservation of Grain and Roots in Workshops, Magazines, and above all, on Shipboard." He says, "In the year 1786 I tried the experiment of placing different roots, &c., ripe and newly gathered in a box which I had bored for the purpose of giving admission to mites and other insects. At the corners of the bottom of the box I placed several leaves of hartwort, the odour of which I knew was noxious to several animals. In another I put leaves of horehound, of rue, and of tansy. The boxes thus prepared remained for a full year on the ground under my shelves. At the end of that term I found the roots, &c., perfectly sound, but the odour of the plants more or less remained, and fearing that it might communicate itself to the outward skin, and occasion a disgusting taste, I proceeded to substitute for the former bitter aromatic herbs, such as a little centaury, wormwood, thyme, mint, &c." He thus preserved the grain for a number of years without renewing the plants. Those he presented to the Convention (1793) had been preserved since 1788. He concludes with the belief that if grain and seed, when gathered ripe, be kept from a moist air, they will preserve for a very long period their vegetable faculties, and may be conveyed in safety and planted with success after the longest voyages.

In the "Transactions of the Society for the Encouragement of Arts" in the last and present century, papers will be found respecting dry rot in timber, foul-air nuisances, &c.; and on the subject of ventilation in connexion. Dr. Priestly in the last century communicated to the Lords of the Admiralty a method of impregnating water with fixed air, obtained from an effervescing mixture of chalk and vitriolic acid, and of making an artificial Pyrmont water. The operation was afterwards improved upon by the invention of Dr. Nouth's glass machine, with Mr. Parker's and Mr. Magellan's improvements. The object sought was to give to ordinary water the properties of mineral waters, for the use of the sick on board ship and in hospitals. Towards the close of the last century, Thomas Henry, F.R.S., of Manchester, a Member of the Medical Society of London, published "An Account of a Method of preserving Water at Sea from Putrefaction, and of restoring to the Water its original Purity and Pleasantness, by a cheap and easy Process." This paper was afterwards republished, to which was added a "Mode of impregnating Water in large Quantities, with Fixed Air, for Medicinal Uses on board Ships and in Hospitals; and likewise a Process for the Preparation of Artificial Yeast." In the "Memoirs" of the Literary and Philosophical Society of Manchester another similar paper appears by the same author. These papers, and others mentioned, are worth referring to by those who are interested in all that appertains to the history of public health preservation. In the Phil. Trans. will be found several particulars relative to providing

necessity of cleanliness and fresh air in ships and buildings.

In an article entitled "Military Reveries," by Dr. Saint John, of Waterford, in the *Anthologia Hibernica*, for March, 1793, the following words under the sub-heading of "Health," occur:—"The sooner a campaign begins in spring and the sooner it terminates in autumn the more healthy: Troops should be encamped on the side of a dry hill. A quantity of limestone should be burned, and on every Saturday or other stated day in the week, be thrown into the necessaries at the rear of each regiment. The power of lime to dry up animal substances in fermentation is astonishing and immediate; and this would prevent putrid fevers and the contagion of fluxes." The continuation of the subject and the advice given are equally good. In an article in the same magazine for the month of March, entitled "Thoughts on the Nature and Cure of Scurvy," there are many curious remarks concerning the nature of soils and atmospheric air. The writer thinks that "mixed soils, therefore, like mixed aliments, are the most proper for the support not only of the vegetable but animal creation. A due proportion of calcar, silex, and argil seems to be productive of the most salubrious air." In the same article we come upon a passage in relation to the earth houses or sweating-houses worth producing here. It is the old form of Turkish or rather ancient British baths. "Even in this island, the common people have a great predilection in their favour, considering them as a general remedy in most disorders, for which purpose small conical houses are frequently erected on the confines of bogs, woods, and other places where firing can be had at little expense, in which the sick are brought in order to be sweated, and by that means to be restored to their health. Sweating-houses and fumigating baths are of the greatest utility in northern climates, and if generally practised in this country would cure or prevent many disorders of which we now complain." In the *Anthologia Hibernica* for June and July, 1793, a "Treatise on Elementary Air" appears, which is both amusing, interesting, and suggestive. The subject is treated in eight chapters. Chapter 1. Of Air in General, and the *pabulum vitæ* of it; 2. Elementary Air gives cohesion to solid bodies; 3. Different States of Elementary Air, and how to discover it; 4. Immutability of it proved; 5. Its Effects upon the Land; 6. Its Effects upon the Waters of the Ocean; 7. On the Internal Effects of Elementary Air; 8. Useful in Spas, &c.

Two works were published in the last century, and were considered popular early in the present century, one of which at least possesses an interest from its author's name,—"Observations on Smoky Chimneys, their Cause and Cure; with Considerations on Fuel and Stoves. Illustrated with proper Figures. By B. Franklin, LL.D. London: sold by I. & J. Taylor, High Holborn." The second was entitled "An Essay on the Construction and Building of Chimneys, including an Inquiry into the Common Causes of their Smoking, and the most effectual remedies for removing so intolerable a Nuisance; with a Table to proportion Chimneys to the Size of the Room. Illustrated with proper Figures. New edition. By Robert Clavering, Builder, London." "The Measuring of Chimneys Reformed," is the title of a work by Venterus Munday, London. Printed in the year 1717. It has some curious plans and comments on the subject treated, but it says nothing upon ventilation. The author produced another curious book for the use of building operatives, entitled "The Marrow of Measuring," before the date mentioned.

To sum up for the present, we may mention that scattered through the old volumes of the *Gentleman's Magazine* during the last century, several odd particulars will be found in relation to ventilation and the public health, and the means adopted by individuals and public bodies to meet the difficulties that



NEW PRESBYTERIAN CHURCH,  
BELFAST.

## LAYING THE MEMORIAL STONE.

THE ceremony of laying the memorial stone of the new Presbyterian Church, Limestone-road, Belfast, was performed on the 9th inst. by Sir Edward Coey, Bt., D.L., in presence of a vast concourse of spectators. The building (with which considerable progress has already been made,) is the first of five Presbyterian churches about to be erected in Belfast. It occupies an elevated and picturesque site about midway between the Carrickfergus and Antrim roads, and is constructed of Dundonald red sandstone, with Scrabo dressings and white string-courses. The contrast of colour is very effective, and style unique.

The dimensions are internally 63 ft. in length, by 40 ft. in breadth, and the height from floor to ridge 50 ft. These dimensions include an entrance vestibule, 9 ft. wide, at each end of which will be a staircase to the galleries. The flooring of this vestibule is to be of Staffordshire blue, buff, and red tiles, to design. The ground floor will be seated for 350, and the galleries for 300. The galleries are to have an open cast-iron balustrading, with moulded pitch-pine capping, polished.

The minister's platform will be placed at the south end, under a recessed, moulded, and cusped arch, springing from the foliated caps of nook shafts and moulded architraves; the front will be considerably advanced into the church; in connection with it, there will be a vestry at the rere.

There are two entrance doors in the north gable, with moulded and traceried lights under an enclosing arch, springing from the richly-carved caps of the granite nook shafts. Above this, a range of four lofty windows will light the end gallery, and the gable above is finished with an open double bellcote, surmounted by a carved stone finial.

The side elevations show two ranges of windows for ground floor and galleries respectively, all of which will be filled with tinted cathedral glass in quarries. The joiner work throughout is to be of pitch pine, wrought clean and varnished. The cost will be over £2,000.

The architects are Messrs. Young and Mackenzie, Belfast; the contractors for the entire works are Messrs. Russell, Brothers, of Belfast and Newcastle.

## GREY ABBEY ILLUSTRATED.

As may be seen from our advertising columns, a series of measured and sketch drawings, details, &c., with historical and descriptive letterpress is about to be published, the entire work being the labour of Mr. J. J. Phillips. The measured and sketch drawings were originally prepared as a "labor of love" for the Belfast Architectural Association. Grey Abbey forms the most extensive, and, indeed, the finest ecclesiastical remains in the united diocese of Down, Connor, and Dromore, and it has often excited surprise why it has so long remained un-illustrated, save in part. The ruin of the famous Cistercian Monastery are worthy of a proper record, and ere time and Vandalism have wreaked their fury further, every portion of the magnificent ruins will have its fitting *fac-simile* as far as such can be represented by the artist's pencil and the graver's art. We feel much pleasure in directing attention to the work in which Mr. Phillips is engaged, and we believe it will be found worthy of the subject and the art enlisted to illustrate it. The work will comprise the following, the majority of them being photo-lithographed from the premiated originals—Plan of Monastery as at present existing; Appendix to the Plan, showing the harmony of Grey Abbey to various typical Cistercian Abbeys; also some peculiarities in its plan; four External Elevations of Church; two Sections of Church; two Elevations of Refectory; two Sketches, interior of Church; various Sketches of Details; various Sheets

of Measured Details; sketches from Exterior of Ruin, and a series of Mediæval Mason Marks, collected from the Ruins. The latter will be highly valuable and interesting, as it is a subject to which very little attention has been given in this country, though some writers in the sister kingdom have devoted some labour in the elucidation of the question. The two sketches of the interior of the church, and the plan of the monastery, will be found particularly good; but, as we will return to a notice of the work, we will refrain now from further particulars. The size of the book will be royal quarto, and the work is one that commends itself, not only to antiquaries, archæologists, and architects, but to a very large class outside them.

## CIVIC LYRICS.—No. LXV.

## THE TRAMP OF THE THIRTEEN.

"The King of France, with thirty thousand men,  
Marched up the hill to fight, and then marched down again."

A Deputation from Cork Hill, of thirteen, 'pon my word,  
March'd down our Quays the other day unto the Ballast Board;  
In passing by the Poddle's mouth, the horrid noisome stench  
Tickled the nose of Tickell, and choked the breath of French,

Worse than a chandler's nuisance, or a Redcow knacker's yard,  
And so the Deputation had to walk on very hard!  
Sir John, who stately strode along (not the Vartry knight),  
Vowed that the sewer gas was worse than dying candle-light.

The Ballast Board was reach'd at last, when Dennehy exclaimed  
"We've come to lay before your Board our case, long shamed  
and blamed;

And ask of you, good gentlemen, a favour or a grant,  
Or power to do what you can't do, and we ourselves don't want.

Speak, M'Swiney, Purdon, Manning, Franklin, Warren and  
Gregg,

Speak, Sir John, and plead our cause—we've need to bravely  
beg;

And Tickell, you, and Lawlor, though Murphy and Rochfort  
blench,

Close up your ranks and shout aloud, or leave it all to French

And back the Deputation went unto the City Hall;

Tickell, 'tis said, look'd very big, while Dennehy look'd small,  
But French he hummed a ditty, with this jovial old refrain—  
"The King of France marched up the hill, and then marched  
down again."

CIVIS.

## NEW CATHOLIC HALL, BELFAST.

THE site of this building is in Bank-lane, immediately adjoining the Provincial Bank of Ireland. It has a frontage of 110 feet in Bank-lane. In fixing the frontage line the architect proposes to widen Bank-lane at its narrowest part by 10 feet, thereby improving the site very considerably. The design of the front shews three storeys—the materials being brick with stone dressings. Brick pilasters with stone bases and capitals stand out in bold relief, and support segmental arches with key-stones, surmounted by a stone cornice and perforated parapet.

The ground floor contains two spacious entrance-halls and staircases leading to the different portions of the upper storeys. A cloak-room and ticket-office is provided at each entrance, and in the rere are suitable apartments for a caretaker. But the chief feature of the building is two spacious school-rooms, male and female, capable of accommodating 500 children. Separate entrance doors and porches, with spacious yards and other accommodations, are provided for these schools.

The first storey contains a minor hall 65 feet by 20; a library and reading-room, 34 feet by 20; a billiard-room for two tables, 52 feet by 20; a retiring-room for use of great hall over; and a large kitchen, with lavatories, water-closets, &c. A corridor in

centre of this floor affords separate entrance to each apartment.

The second floor is entirely devoted to the great hall, and is approached by two main stairs, each 6 feet wide—one at each end of the building. The hall is provided with a platform and balcony—a retiring-room with private stair being attached to the former. The dimensions of the hall are 105 feet by 48 feet in clear. The ceiling is 36 feet in height; it is arched and divided into panels with centre flowers. The stiles have galoche enrichments, with pateras at inter-sections. Underneath ceiling is a bold entablature, with moulded dentils to cornice, supported by fluted pilasters with Corinthian capitals. The street front of the building is to be protected by a stone plinth with ornamental wrought-iron railing, having a gate opposite each door.

The works are being carried out from the designs, and under the superintendence of, Mr. Alexander M'Alister, architect, Belfast.

Mr. James Ross, of Belfast, is the contractor. Amount of contract, £7,500.

THE HISTORICAL MANUSCRIPTS  
COMMISSION.

THE fourth report of the Royal Commission on Historical Manuscripts, which was recently presented to Parliament, is now published in a portly volume of upwards of 600 closely-printed pages. Blue books in general are neither interesting nor amusing to the ordinary public, but this is a volume which must prove deeply interesting and instructive to every intelligent person. Our readers may remember that in 1869 the Queen issued a commission to Lord Romilly, the Marquis of Salisbury, the Earl of Airlie, the Earl of Stanhope, Lord Edmond Fitzmaurice, Sir William Stirling Maxwell, Bart.; Dr. C. W. Russell, President of Maynooth College; Mr. G. W. Dasent, D.C.L.; and Mr. Thomas Duffus Hardy, in the belief, as had been represented, that vast collections of manuscripts and papers of great historical interest were existing, and in the possession of private families and institutions throughout the three kingdoms.

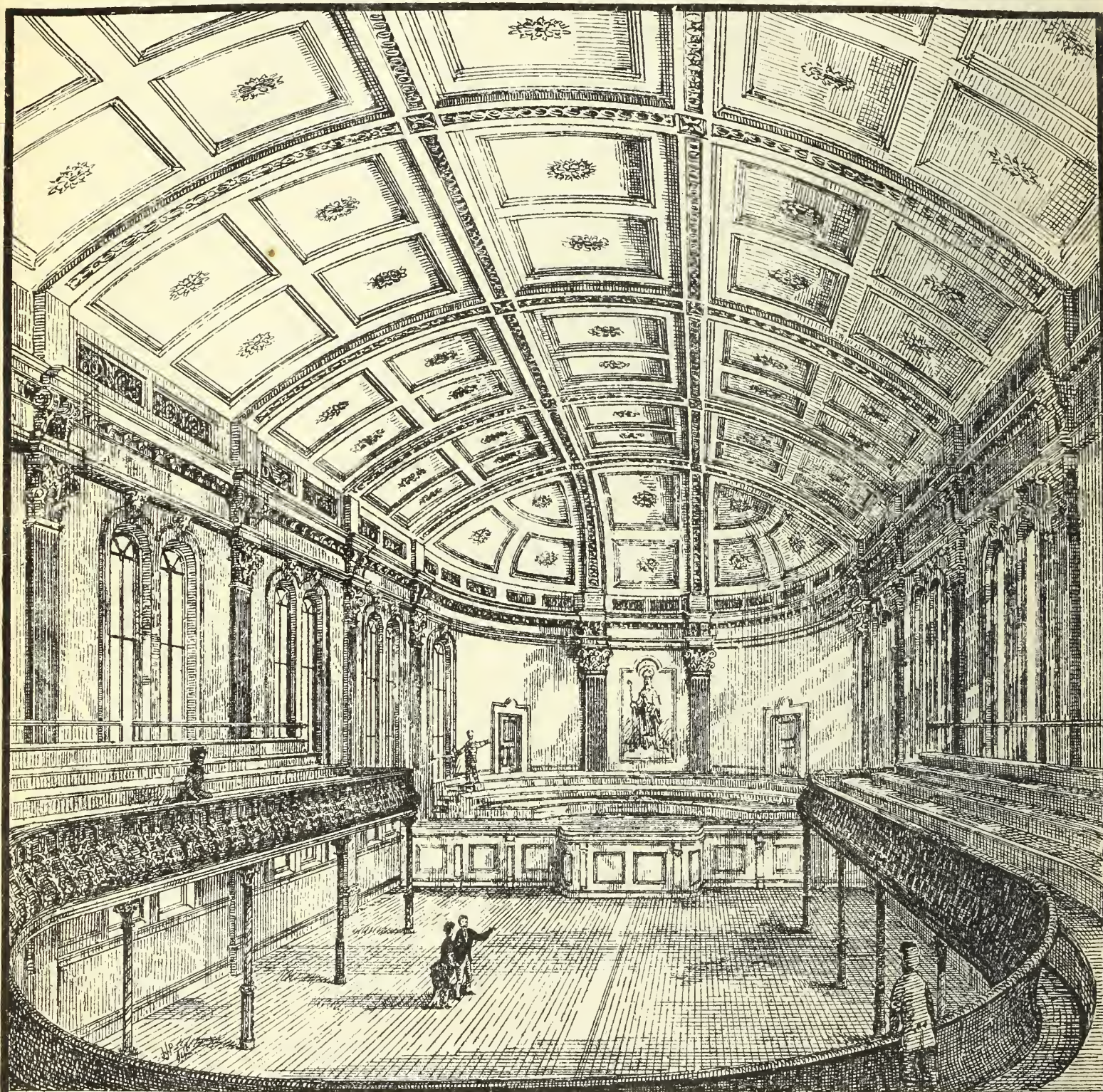
The fruit of the commission has proved the truth of the representations, as a great number of very important documents have been brought to light by researches and examinations made. As a guarantee was given that no matters of a private nature in respect to the history of families or their title-deeds, or other purely personal matters, would be made known to the public, treasures were unlocked to the commission which they would not otherwise have been permitted to examine. Since the nomination of the first commission, the Bishop of Limerick, Lord Talbot de Malahide, Lord Houghton, Lord Acton, and Sir George Jessel were appointed as additional commissioners. The work of inspection throughout last year was carried out by Mr. Alfred J. Harwood, editor of the "Year Books" of Edward I., Mr. H. J. Riley for England, Mr. J. T. Gilbert for Ireland, and Dr. Stuart and Dr. Fraser for Scotland. The Cecil documents belonging to Lord Salisbury have been collected by Professor Brewer. The collections of Lord Denbigh and Colonel Towneley have been specially reported upon by Mr. R. B. Knowles, and an account of the manuscripts of Magdalen College, Oxford, has been furnished by the Rev. Dr. Macrory. On the whole, during the late year, 90 additional collections have been examined, and 60 analyses of their contents made, making a total of 350 collections of manuscripts excavated, as it were, from the grave of time.

From Ireland, manuscripts, among others,



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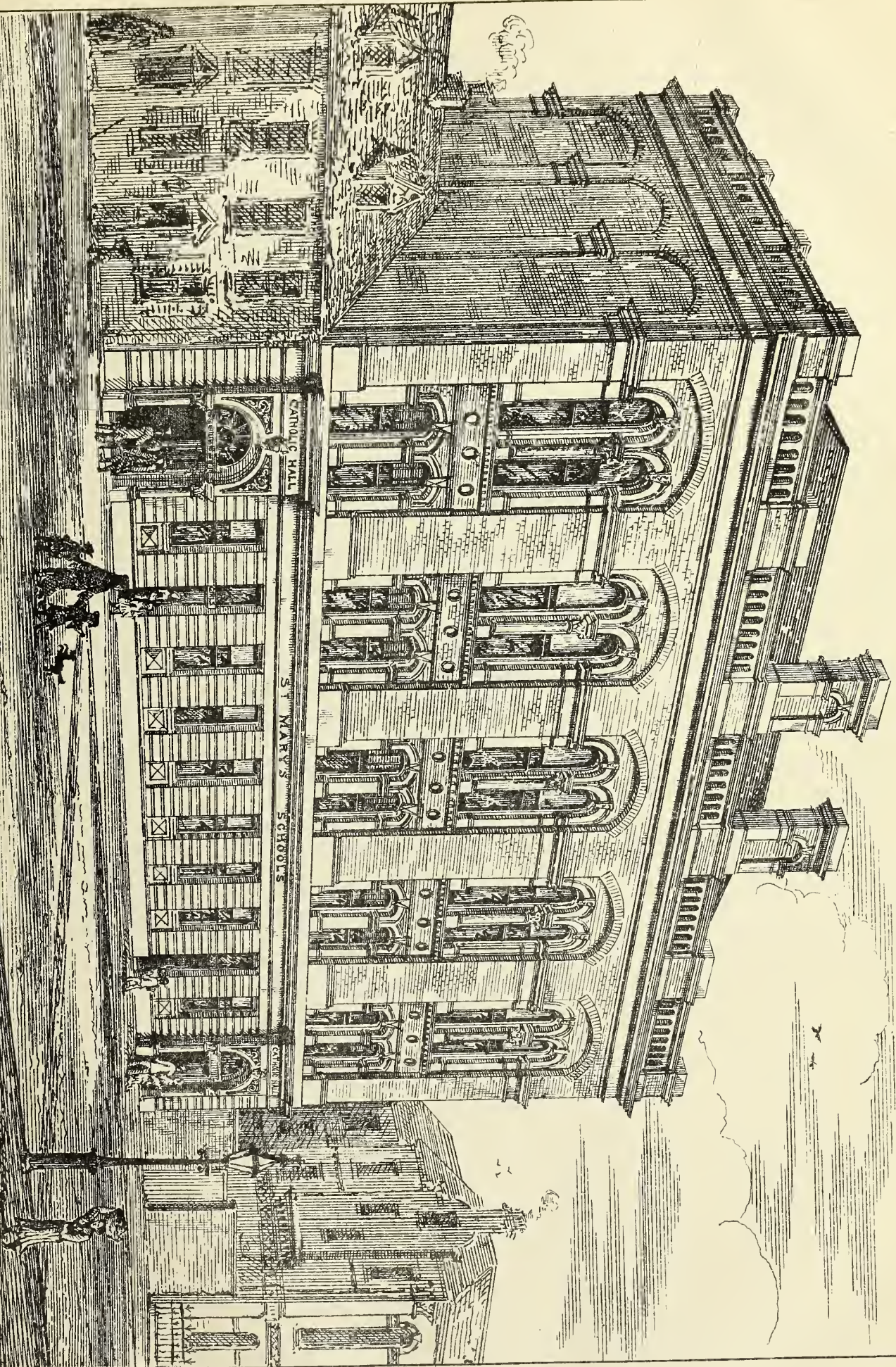


Catholic Hall - Belfast - Interior view

Alex<sup>r</sup> McAlister - Architect







CATHOLIC HALL . BELFAST

ALEX. McALISTER . ARCHITECT



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are reported on which belong to Lord Gormanstown, the Marquis of Ormonde, Sir R. O'Donnell, Bart.; Trinity College, Dublin, and the College of Irish Franciscans of Louvain. Those belonging to England and Wales comprise collections of the House of Lords, Westminster Abbey, the Marquises of Salisbury, Hertford, and Bath; the Earls of Denbigh and De la Warr, Lords De Ros, Bagot, Colchester, and Mostyn, Lord E. Fitzmaurice, Sir John Lawson, Bart.; Colonel Carew, the representatives of the late Colonel Macaulay, Colonel Towneley, the Cinque Ports, Balliol, Queen's, Magdalen, and St. John's Colleges, Oxford; Emmanuel and Catherine's College, Cambridge; the parishes of Parkham and Hartland, the Corporations of New Romney and Hythe, and Messrs. Pyne-Coffin, Ormsby Gore, M. Ridgeway, G. F. Wilbraham, W. Beaumont, and J. J. Rogers. From Scotland the contributors are the Duke of Argyll, the Countess of Rothes, the trustees of the late Marquis of Breadalbane, the Earls of Fife, Kinnoul, and Selkirk, Lords Wharnclyffe and Monboddo, the Hon. Isabella Erskine Murray, Sir M. R. S. Stewart, Colonel Farquharson, Colonel Rattray, Colonel M. de Lovall, Messrs. Buchan, Dalrymple, and Wauchope, and the Burgh of Kircudbright.

We may, on an early occasion, return to a more extended notice of the subject matter of this most important volume, copies of which, we hope, will soon find their way into the hands of all our historians, archæologists, and antiquarians.

#### SOCIAL SCIENCE CONGRESS FOR 1874.

SEVERAL special questions of an important sanitary character will be discussed at the forthcoming Congress to be held at Glasgow. In the Health Department the subjects to be discussed will be: 1. "What are the best methods for sewerage towns, and of disposing of their organic refuse?" 2. "In what way can healthy houses of a corresponding class be substituted for those which it has been found necessary to remove for sanitary, municipal, or other purposes?" 3. "What influence has the employment of mothers in manufactures on infant mortality, and ought any or what restrictions to be placed on such employment?"

In the Economy and Trade Department the following are included: 1. "What are the probable effects of the spread of manufacturing industry in Europe on the future commercial prosperity of the United Kingdom?" 2. "What legislation should follow upon the report of the commission on friendly societies?" 3. "What are the best means of drawing together the interests of the United Kingdom, India, and the Colonies?"

An exhibition of sanitary appliances will take place in connection with the Congress, extending from September 30th till October 10th.

#### "THE MOUSE."

TEN years of agitation for a main drainage, numerous reports and amended ones, lawyers' opinions by wholesale and in detail, deputations to London and the Lord Lieutenant, the payment of a main drainage staff for three years who had nothing to do and knew how to do it. The expenditure of £20,000 for imaginary work, the mortgage of every rate in the city for many years to come, the promotion of sundry bills, the opposing of others—these among other notorious transactions, characterised by systematic jobbery, have ended as might have been anticipated. A corporation so pregnant with schemes might be expected to produce something that would make a stir when issued into life. Behold "The Mouse." The former mice died on account of the severe labour of the Mountain. We watched the fate of the annexed little bantling with the gravest anxiety:—

Moved by Frederick Hamilton, and resolved—"That, whilst this committee is advised, and believe that the Port and Docks Board are the proper and legal authority to abate the existing nuisance in the River Liffey, we are most desirous of doing everything in our power to aid and assist this pressing necessity, and we, therefore, request that the Port and Docks Board will place at our disposal some barges for the purpose of conveying away the surface mud and matter that now accumulates on the foreshores, this committee undertaking to procure the necessary manual labour." It was further resolved that the foregoing resolution be forwarded to the Lord Mayor, with a request that he may submit same to the Council for approval.

On the motion of Mr. Reilly, seconded by Mr. Tickell, the standing orders were suspended to enable the Council to consider the report.

Mr. Tickell then moved that the report be adopted. Sir John Barrington seconded the motion, and said it was most important to carry out the resolution of the Public Health Committee.

The motion was unanimously adopted.

The citizens cannot complain any longer that they are not getting a something done for their £20,000.

#### THE MANCHESTER SOCIETY OF ARCHITECTS.

THE annual meeting of this society was held at the Royal Institution on the 29th ult. The report referred to the work accomplished by the society during the late year, and of the efforts made to promote the education of architectural students, and the technical education of the workmen of the building trades. Reference was also made to the endeavours that are being made to induce the City Council to adopt such building regulations as would have the effect of a Building Act. A new council was elected for the ensuing year.

#### SANITARY AND OTHER NOTES.

KINGSTOWN.—At a late meeting of the Commissioners the renewal of the lease of the town-hall, for transfer as a Roman Catholic Hospital, was sanctioned and sealed. A bill of costs, amounting to £120, furnished by the board's solicitor, was referred for taxation. The bill of costs of Mr. Sharkey for Parliamentary proceedings alleged to have been carried out for the board, was referred for consideration. The mortality in Kingstown during the past month was stated to have been 12 per 1,000 of the inhabitants. A reduction of half a million gallons of water was reported as saved per week by certain regulations carried out. The clerk, in reply to a question, stated that the annual payment by this board to the Dublin Corporation was £1,200 for water. Several complaints from ratepayers as to want of water were received, and were ordered to be attended to. It was resolved to examine certain premises at a rent of £65 a-year with a view to renting them as a town-hall. The surveyor's report recommended the erection of a water-meter: referred for consideration.

NAAS.—Dr. Cameron has reported that he has examined nine samples of water in this town, all of which he pronounces unfit for drinking. That of the pump on the Dublin road was the worst, and that of the pump in Poplar-square next in order.

WICKLOW.—At the monthly meeting of the Town Commissioners a communication was read which was received from the office of the Lords of the Treasury with reference to the memorial of the Commissioners, dated the 2nd March last, praying for an extension of the time for which they were authorised to grant building leases. In reply to the memorial, copies of two letters from Mr. Francis Wakefield on the subject were transmitted. Mr. Wakefield stated that the Commissioners had lately come into possession, by the expiration of an old lease, of a very large amount of property in the Main-street and Market-square of Wicklow, consisting of dwelling-houses, shops, public licensed houses, &c. He asked how was it

competent for the Commissioners to give leases of 75 years to the occupying tenants of their late lessee, at the low ground-rents of from 1s. to 2s. 6d. per foot frontage—so that a tenant holding a shop of 40 feet frontage, with a rear of 60 feet, would have to pay but £2 per annum, and the most £5 per annum, the actual rent previously paid being from £22 to £40 per annum? The consideration of the communication was postponed till the next monthly meeting.

WATERFORD.—Small-pox broke out a few days ago at Grange, a suburb of Waterford, and several cases had to be removed to the hospital. Death has resulted in one or two instances.

#### HOME AND FOREIGN NOTES.

THE COTTAGE HOMES OF ENGLAND.—In the sister kingdom as well as in this country, there are homes no better than pigsties. Some little idea, says the *Pall Mall Gazette*, may be formed of the domestic delights of the "English cottager's home" by studying the account given on Saturday to the Nantwich rural sanitary committee by Mr. Davenport, who has been engaged, as sanitary inspector, in a tour of inspection of all the townships comprised under the authority of the board, of the condition of the cottages and their inmates in the villages of Ridley and Buckley. Alluding to Ridley, after describing many things impossible to mention without exciting a feeling of painful disgust, he gave an account of the toll-gate at that place; and certainly even those who most strongly resent payment of tolls must admit that the fate of the toll-gatherer is more than sufficient retaliation for any inconvenience he has inflicted on mankind. The only window in the house which opens is the window of the pantry, which adjoins the pigsty. Six persons in this den are crammed into one little bedroom without the slightest ventilation except that, to prevent suffocation, they have prudently knocked out a pane in the glass window. The toll-gatherer is, however, not worse off than his neighbours, for in Ridley the majority of the inhabitants have but one bedroom, and that of very small dimensions. The room is generally taken out of the roof, and it is often only possible to stand upright just in the centre. When sickness enters these cottages the sick and the well have to lie down together, and when death comes the living and the dead have to repose side by side. In one cottage, Mr. Davenport was informed, that fifteen children had been born, and the same number, with their father and mother, occupied one of these places. During the wedded life of the parents, they told him four adult corpses had been laid out in that one room, besides the bodies of several children, the family sleeping in the same room; and the wonder and fear of the children going to bed at night at the "mystery," from which they were only separated by a thin sheet, was described to him, and may well be imagined. At another house he found that eight human beings had slept in a small room with a corpse. Families of ten and more he had heard of as being reared in small rooms like those he had described. Mr. Davenport feels sure these matters only require to be known to be remedied, which shows that Mr. Davenport is of a sanguine temperament.

WOOD PAVEMENT.—The Commissioners of Sewers received a memorial, signed by nearly all the inhabitants of Fleet-street, in favour of substituting a wooden pavement for the present pavement of stone. This is a reform which for a long time has been much needed, and our only surprise is that not only in Fleet-street, but in other important thoroughfares of London, the clumsy contrivance of stone pavement is still permitted to exist. The doubts once entertained regarding the virtues of wood or asphalt pavement may now be said to have vanished. At first it was very natural that drivers should experience some difficulty in managing their horses on the smoother material. After being long accustomed to the firm and deep hold afforded by large paving-stones, separated from one another by ravines of mud, the level of asphalt or wood seemed strange and perilous. Even supposing, however, that some inconvenience is caused to the horses by the use of the new material, it may perhaps be worth while to consider the comfort of human beings as being in itself important. There are a great number of persons who reserve all their tenderness for the brute creation, and who regard the distracting noises of stone pavement as only a trifling annoyance. But, as Mr. Deputy Farrer observed, there is now a general desire for noiseless pavement, and local authorities will do well to give the matter a speedy consideration.—*Globe*.



### THE DUBLIN SANITARY ASSOCIATION.

THE second annual meeting of this association was held in the Leinster Lecture Hall on the 2nd inst. Among those present were:—Professor W. Stokes, Dr. Grimsshaw, Dr. Churehill, Dr. Todhunter, R. O'Brien Furlong, Sir Robert Kane, Dr. William White, Dr. Dudley White, Dr. J. W. Moore, Edward T. Beatty, Thomas H. Todhunter, Dr. Duncan (President of the College of Physicians), Rev. Alfred Harvey, John McEvoy, Dr. Duncan, W. N. Harvey, Alexander Parker, D.L.; Surgeon-Major J. Johnston, Robert Sexton, H. J. Sibthorpe, Peter Roe, Dr. E. Peele, Dr. Ivory Kennedy, Dr. J. M. Eustace, Dr. C. F. Moore, T. Pim, jun.; Dr. H. H. Stewart, Henry Maclean, J.P., &c., and a number of ladies.

On the motion of Mr. John McEvoy, seconded by Mr. Robert O'Brien Furlong, the chair was taken by Jonathan Pim, Esq.

Mr. R. O'Brien Furlong, hon. sec., read the minutes of the first annual meeting, held in June, 1873, which were confirmed.

Dr. Todhunter read letters of apology from Viscount Monck, E. H. Kinahan, Sir A. Guinness, Sir Edward Borough, Lord James Butler, Dr. Traill, F.T.C.; and Dr. Robert McDonnell.

Dr. Todhunter then read the report, which will be found noticed elsewhere.

Dr. Duncan, President of the College of Physicians, said he had great pleasure in moving the adoption of the valuable report. It might be asked what need was there for that association?—it was a voluntary body, possessed of no legal power nor funds, save the trifling subscriptions of members. The Public Health Committee, on the contrary, was endowed by the legislature with legal powers of taxation for the purpose of providing for the proper care of the sanitary condition of the city. It might appear even worse than useless for such an association as theirs to take any action under the circumstances. This idea at first prevented him from taking part in its proceedings; but during the past few months, having been led, by what went on in reference to the Public Health (Ireland) Bill, to look more carefully into the work of that association, he found that the functions of the two bodies which he named were essentially distinct. The Public Health Committee was a practical organization for the purpose of carrying into effect the things that were shown to be necessary for the improvement of the sanitary condition of the city—their association, on the contrary, was a scientific body. It was formed for the purpose of creating and educating public opinion with regard to sanitary matters; of directing the attention of the authorities and the public to those points in connection with which the existing powers for the maintenance of the sanitary condition of the city were not duly exercised, or were inadequate. Consequently, the association, instead of diminishing the responsibility of the Public Health Committee, was an efficient aid to that body. The condition of Dublin was much more unhealthy than that of London, Glasgow, Edinburgh, and other large cities. Dublin had wide streets, easy access to the country, pure air, and plenty of good water, and it ought to have a salubrious stream passing through it. He did not say that that unhealthiness was altogether to be attributed to imperfect sanitation. There might be other elements at the bottom of it. The vice of intemperance, he believed, had a great deal to do with it. But, making allowance for these causes, they must come to the melancholy conclusion that neglect of sanitary measures had a great deal to do with the condition of things to which he alluded.

Mr. Robert O'Brien Furlong, in seconding the motion, referred to the several subjects dealt with in the report. Speaking of the defective system adopted by the Public Health Committee for cleansing ashpits, he said the charges to be made were 2s. for the first two loads, and 2s. 6d. for each load after the first two, but in no case will less than 6s. be charged. The charges were in fact prohibitory. There were 9,000 tenement houses in Dublin, and, according to the rule laid down by the Public Health Committee, the ashpits of each of these houses must be cleansed once a month. This would amount to £3 12s. per annum for each house, so that the cost of cleansing the ashpits of the tenement houses of Dublin would amount to £32,400 per annum. One-third of the 9,000 tenement houses should, he suggested, be demolished, as injurious to public health. The Artizans and Labourers' Act of 1868 gave the Corporation ample powers to proceed, and also provided for the manner in which funds were to be supplied therefor. Moreover, the act he had quoted contained this enactment, that any four or more householders living in a rear to any street might report to the officer of health that any premises in or near that street were unfit for human habitation, and in the event of the

proper sanitary authority neglecting to have the nuisance abated, they could go to the Local Government Board. That was a fact worth bearing in mind in a city like Dublin. Then if these houses were taken down, great scope would be afforded for philanthropic individuals making a move in the direction of supplying better-class dwellings for the working and poorer classes in their stead. They had made no reference to the Liffey nuisance in this report, because they felt that by the pressure of the citizens, led by the Duke of Abercorn, the Corporation must soon do something in that direction.

The motion for the adoption of the report was then put and carried.

Mr. Alexander Parker, in moving the list of officers for the ensuing year, observed—The object of their association was to improve the comforts of the poor, and the comforts of the city generally—to insure the health of the poor and of the country generally, and to prolong the lives of all classes. It was not enough that he, or those present, should live in well-ventilated dwellings, and pay due attention to all the rules of cleanliness or decency—they might get infection from their neighbour at either side; hence the interest each had in looking beyond self in this matter. He believed that society proved an excellent medium for doing that on an enlarged basis.

Mr. Thomas Pim, jun., in seconding the resolution, expressed his surprise at the marked want there was of an educated public opinion on this and kindred subjects in Dublin. If a movement touching matters polemical or political were set on foot, it would obtain supporters from all quarters, but if they turned their attention in the direction of promoting anything of a social character they experienced the greatest possible difficulty in obtaining proper assistance. The question of improving the dwellings of citizens he believed to be one of the most important social questions of the present day, and he wished any movement in that direction every success, because he was of opinion that they would increase the home comforts of all classes; they would lessen the consumption of intoxicating liquors—the fruitful parent of many evils.

After the transaction of some other routine business, the proceedings terminated.

### THE NATIONAL MANUSCRIPTS OF IRELAND.

(Continued from page 187.)

IN continuing our account of the National Manuscripts of Ireland, we desire to state, for the information of Irish and English readers across the Channel, that the author of this deeply-interesting and historical sketch is Mr. J. T. Gilbert, secretary to the Public Record Office, Ireland, and author of the "History of Dublin," "Lives of the Irish Viceroy," and other cognate works.

THE BOOK OF ARMAGH is now defective at the commencement. Its first portion is occupied with notes in Latin and Irish on St. Patrick's acts; a collection styled "Liber Anguili," relating to the rights and prerogatives of the See of Armagh, and the Confession of St. Patrick, ending, "hucusque volumen quod Patricius manu conscripsit sua." These are followed by St. Jerome's preface to the New Testament; gospels of Matthew, Mark, Luke, and John; epistles of St. Paul, including that to the Laodiceans, with prefaces chiefly by Pelagius; epistles of James, Peter, John, and Jude; Apocalypse; Acts of Apostles; and life of St. Martin of Tours by Sulpicius Severus. It also contains coloured drawings of the evangelistic symbols.

The name of the scribe of the BOOK OF ARMAGH was ascertained in recent times by the Rev. Charles Graves, now Bishop of Limerick. Having noticed ancient and elaborate erasures on some of its pages, he conceived that matter connected with the history of the book might be recovered through a careful examination of them. Under these erasures vestiges were found of entries, in which Ferdonnach, in the customary manner of ancient Irish transcribers, entered his name, and requested a prayer from the reader. The only scribes named Ferdonnach mentioned in Irish records are two, who died at Armagh in A.D. 790, and A.D. 844, respectively. The latter was characterised as a wise man and a distinguished scribe. That he wrote the first part of the BOOK OF ARMAGH in A.D. 807 is assumed mainly on the following grounds:—

At the end of the gospel of St. Matthew, the scribe records, in semi-Greek characters, that he finished the writing of this gospel on the

that Apostle. That this was during the single year A.D. 807, in which Torbach held the bishopric of Armagh is inferred from a fragment—*bach*,—of the name of "the successor of Patrick" brought to light from under another ancient erasure. Torbach was the only bishop of the see whose name terminated with those letters during the time of any known scribe styled Ferdonnach.

The collections concerning St. Patrick, in the first part of the BOOK OF ARMAGH, constitute the oldest writings now extant in connection with him, and are also the most ancient specimens known of narrative composition in Irish and Hiberno-Latin. They purport to have been originally taken down by bishop Tirechan from Ultan, who was bishop of Ardbraccan towards A.D. 650, and by Muirchu Macu Machteni, at the request of his preceptor, Aed, bishop of Sletty, in the same century.

Among the native Irish, the BOOK OF ARMAGH appears to have been known as "the Canon of Patrick." The Irish annalists record that the Canon of Patrick was encased, in A.D. 937, by Donogh, son of Flan, King of Ireland.

The entry at foot of fol. 16, purporting to have been made in presence of Brian Borumha, is considered to have been written about A.D. 1002, when, after having subjected Ulster, he made an offering of twenty ounces of gold on the altar of Armagh.

The Irish word *trogan*, meaning "wretch," appears opposite to the name of Judas on folio 38; and on the margin of the thirteenth chapter of Mark the name Cellach is written in semi-Greek characters. This is conjectured to refer to the Abbot Cellach, who undertook the monastery of Kells, in A.D. 807, after Iona had been devastated and many of the Columban community there slain by the Norsemen. To these sufferings it is supposed the description, in this chapter, of the miseries of the destruction of Jerusalem may have been deemed applicable.

A remarkable specimen of the skill of the scribe appears on fol. 103 recto, the central portion of which is written, in the shape of a diamond, in semi-cursive letters somewhat similar in form to larger characters of this class in parts of the Book of Kells.

Pope Gregory, from whose "Moralia" extracts appear on the same page was, from his once widely studied work, named "Gregorius moralium" by old Irish writers, some of whom laboured to show that he was of Hibernian descent. The designation given to him in Irish of *bel oir*, "of the golden mouth," is referred to, in A.D. 634, by Cummian, in his letter to Segienus, abbot of Iona, on the Paschal controversy.

It would seem that the BOOK OF ARMAGH was supposed to have been written by St. Patrick's own hand from the following passage on page 21 at the end of the copy of his confession: "Hucusque volumen quod Patricius manu conscripsit sua."

This manuscript is conjectured to be the book alluded to by St. Bernard in the twelfth century, as being then regarded as one of the insignia of the See of Armagh, and oaths and covenants appear to have been frequently ratified on it. Its hereditary custodian was styled in Irish *Maor*, or Keeper, and held an endowment of land in virtue of his office. His descendants were known by the name of *Meic Maor*—sons of the Keeper—or Mac Moyre.

On the reverse of the 104th leaf of the BOOK OF ARMAGH, with the date 1662, appears the autograph of Florentinus or Florence Moyre, the last of that family who had custody of the BOOK OF ARMAGH. Florence and John Moyre appeared in 1681, at London, at the trial of Oliver Plunket, the Roman Catholic Archbishop of Armagh. They, with others, asserted on oath that Plunket had been engaged in soliciting foreign powers to invade Ireland. On their testimony, he was found guilty of high treason and executed at Tyburn in 1681, having declared that the witnesses against him were "merciless perjurers" who "aimed at his life." Florence Moyre before he went to London in 1681, placed the book in pledge for five pounds, and it appears soon after to have been acquired, with its ancient leather case, by Arthur Brownlow, of Armagh, who arranged and numbered the leaves. The manuscript was somewhat later examined for Edward Lhwyd, and he, it would appear, considered it to be very ancient, though not of the age of St. Patrick. The BOOK OF ARMAGH remained in the possession of the Brownlow family till purchased in 1853 by the Rev. William Reeves, D.D., who subsequently transferred it to the late Primate Beresford, by whom it was presented to the Library of Trinity College, Dublin. An edition of the Book of Armagh is in preparation by Dr. Reeves, and I take this opportunity of acknowledging my obligations to him for his assistance in connexion with the specimens given from it and other biblical manuscripts in the present publication.



NAN.—Maelbrigte Mac Durnan, Mac Dornain, or Mac Toruain, was of the race of St. Columba, and succeeded him as nineteenth abbot of Iona in A.D. 891. He also became abbot of Armagh and Raphoe. We find him, in A.D. 889, intervening vigorously in a contention at Armagh between some of the chief Ulster septs, and he is recorded to have made a journey to Munster, in A.D. 908, for the object of ransoming some Britons who had fled from England to escape the Danes. He appears as a saint in native Irish calendars, and his death, in A.D. 927, is recorded as follows by the annalists of his own district:—"Maelbrigte, son of Tornan, successor of Patrick, Columcille, and Adamnan, head of the piety of all Erin and of the greater part of Europe, died in a good old age, on the 22nd of February."

Mael-Brigte—literally the tonsured or devotee of Brigit—was a name in use among the Irish from the seventh century, and has been Latinized "Calvus Brigita," "Brigidianus," and "Marianus." Brigit, abbess of Kildare in the sixth century, one of the three chief saints of Ireland, was panegyricized as the glory of the Irish—"Scotorum gloria"—their head abbess and protectress.

Frequent appeals to Brigit were in the eighth and ninth centuries entered by Irish transcribers abroad on the margins of their manuscripts, still extant at Milan and St. Gall, in such terms as, "in nomine ihesu et Sanctae Brigita," "ave Brigita," "Sancta Brigita adiuvata scriptorem istius artis." Some words in very old Irish ascribed to Brigit appear in the Hiberno-Latin manuscript of the eighth or ninth century in the Library of Berne, referred to by Orelli in his edition of Horace.

The manuscript of Maelbrigte Mac Durnan, which in some parts much resembles the Book of Armagh, contains the four gospels, with figures of the evangelists, and elaborate and graceful initial pages. The latter are pre-eminently elegant. At foot of the page containing a portion of the Gospel of St. Matthew, xxvii. 24-32, the writer alludes, in two lines in the Irish language, to the scourging and mocking of Christ before crucifixion. In Mac Durnan's volume are also entered Latin lines on the evangelists and copies of Saxon documents. The presentation of the book to Canterbury by Athelstan is recorded as follows on the second leaf:—

✠ MÆIELBRIDUS · MAC ·  
DURNANI · ISTV · TEXTV ·  
PER TRIQUADRV · DO ·  
925 · DIGNE · DOGMATISAT ·  
✠ AST · AETHELSTANUS ·  
ANGLOSÆXANA · REX · ET ·  
RECTOR · DORVVERNENSI ·  
METROPLI · DAT · PER · EVU ·

Four gilt illustrations of the life of Christ, apparently of the French school towards the fourteenth century, have been inserted in the volume. In the sixteenth century, Mac Durnan's manuscript was in the hands of Matthew Parker, Archbishop of Canterbury, by whom several of the pages were marked and numbered with red chalk.

THE BOOK OF HYMNS in the Library of Trinity College, Dublin, was formerly in the collection of Primate Ussher, and now consists of thirty-four leaves. It contains hymns and metrical pieces in Latin and Irish on Saints Patrick, Brigid, and Columba, together with compositions ascribed to Patrick, Columba, Adamnan, Broccan, Cuchaimne, Cumine, Dallan, Fiac, Mugint, Ninire, Oengus, Sanctain, and Ultan. In it are also the "Gloria in excelsis," "Te Deum," "Magnificat," Prayer of St. John the Evangelist, epistle to Abgarus, and other pieces of cognate class. Most of the hymns are copiously glossed, in very small old writing, and preceded by introductions or prefaces in intermixed Latin and Irish.

We have no means of precisely fixing the age of this manuscript of the BOOK OF HYMNS, but it may be assigned to the eleventh or twelfth century. Another and very similar Irish Book of Hymns exists in the hands of the Irish branch of the Franciscan Order. From it Colgan, in 1647, printed, with a Latin version, the hymn on St. Patrick, ascribed to Fiac, of which since that period many translations have appeared. This ancient Irish composition, the language of which is in some parts very obscure, is now reproduced in fac-simile for the first time from the manuscript in Trinity College.

At the time of his conversion to Christianity, Fiac is represented to have been a youthful poet, under the tutelage of Dubthach, chief bard of Ireland. Fiac belonged to one of the dominant septs in Leinster, of which district he was the first bishop; and his relics were preserved with veneration in his church at Sletty, near Carlow. He stands in the calendar of Irish Saints on the 12th of October, and he is included as a "bishop and confessor" in the "Acta Sanctorum." The editors of the latter, however, considered the hymn ascribed to him to be a composition of later date than his age. The late

J. H. Todd, D.D., commenced, but did not live to complete, an edition of the Book of Hymns, portions of which have also been published by W. Stokes, LL.D., and others.

## ARE OUR QUAYS THE HABITATS OF FEVER?

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—In the IRISH BUILDER of the 1st inst. you quote from Dr. Stokes' lecture, delivered at the Royal Dublin Society last year, certain remarks with reference to the injurious, or rather non-injurious, effect of the exhalations from the Liffey upon the health of those dwelling in the neighbourhood. Dr. Stokes says:—"Dr. Grimshaw's fever map of Dublin shows that the quays are not the habitats of fever." Now, sir, I deny that my map (which is not of Dublin, but only of the south side of the city) shows anything of the kind. The map only marks the residences of Cork-street Hospital patients from the south side of the city for a limited period. The quays are not densely populated, therefore there are comparatively few to catch fever, and the majority of those who live along the quays are of too high a class to seek hospital advice. Anyone looking at my map will see that *all* the streets in the immediate vicinity of the quays are "*habitats of fever*," especially those near the part of the river where the mud is most exposed at low water. I beg to forward a copy of the map for your information.—Yours truly,

T. W. GRIMSHAW, M.D.

13 Molesworth-street, July 4th, 1874.

[Doctors will differ, and may well agree to differ, so long as their differences lead to no serious results. In the article of an esteemed contributor in our last, Dr. Stokes' assertions were given as reported in one of the daily papers. For ourselves we must say that we do not subscribe to the opinions expressed by Dr. Stokes as to the harmlessness of dirt and bad smells, neither does any sanitarian. Dirt and bad smells, under any condition, we firmly believe, are injurious, and a continuance of them fosters disease. Taking both sides of our Quays from a line with Strand-street and Temple Bar to Barrack-street and Island-street inclusive, we think the population will be found tolerably dense and necessitous indeed. When writers use the term "along the Quays" in a sanitary sense, it is not to be supposed their observations are confined to the sanitary or unsanitary condition of the line of dwellings only that flank these two boulevards. A certain distance inward is always supposed to be included; and in looking at the question, and viewing it in this light, we are certainly of the opinion that our Quays are the habitats of fever. Dr. Grimshaw, we see, is also of the same opinion,—at least as far as he is committed to the portions indicated on his "Fever Map" of Dublin. If the sewage and other polluting matter were intercepted from discharging into the river, the natural ventilation, improved as it would be by the influx of daily wholesome and bracing tides, would soon render the Quays of Dublin no longer the habitats of fever.—ED. I. B.]

## THE PROPOSED DECORATION OF ST. PAUL'S CATHEDRAL.

THE controversy anent Mr. Burges' scheme for the decoration of the interior of St. Paul's Cathedral, waxes warmer and warmer each day. The annexed letter, signed by the members of the dissolved Fine Arts Committee, explains itself:—

TO THE EXECUTIVE COMMITTEE FOR THE COMPLETION OF ST. PAUL'S.

Mr. Dean and Gentlemen,—We have given careful attention to the letter from the majority of your body published in the *Times* of the 26th of June; and although it is not formally addressed to us, yet as in substance it embodies your reply to our protest of the 4th of June, we feel it due both to you and ourselves not to leave it without notice.

Desiring, as far as possible, to limit the discussion, and to avoid irritating topics, we pass over all collateral and personal questions referred to in the letter. We omit even that of the character of the artists named to the Fine Arts Committee by Mr.

Burges, as our objection, however weighty, at the date of our protest, loses its importance now that you have announced your intention to cull in artists of a superior rank. We confine ourselves to the question which is really the essence of the whole matter. Is Mr. Burges' design a faithful fulfilment of his agreement to limit himself to the style of Sir Christopher Wren, or to that of the best Italian architects and artists of the 16th century? And is it, in its principles of composition, its proposed materials, and its intellectual and artistic quality, such as the world will recognise as a conscientious and adequate "completion" of Wren's great conception?

In answering this question, the passages you quote from the "Parentalia" appear to us to have no relevance. They relate exclusively to the intended "altar," with its "canopy" or baldacchino, and to the "cupola," but neither of these is included in Mr. Burges' models, and upon neither of them have we had any occasion for expressing an opinion. No one can seriously suppose that we desire to "leave all the rest of the building cold and unadorned," as in such a case we should never have joined a committee for decorating it. Nor, on the other hand, can it be gravely contended that the circumstance of Wren's grandson applying the words "magnificence" and "splendour" to the intended altar canopy and to the mosaics of the cupola proves that Wren himself desired an indiscriminate profusion of those qualities in the remainder of the building. For ourselves we have never objected to any "magnificence" and "splendour" which can be fairly shown to have been contemplated by Wren, or to be in harmony with the spirit of his works. But in determining what he really contemplated the right course, as we maintain, is that when once it is ascertained that his extant drawings and models for St. Paul's are not sufficient to guide us, we should resort to his "architectural works elsewhere," and endeavour by an honest and sympathetic study of those works to deduce the characteristics of his "complete" style. We contend that the design of Mr. Burges exhibits no evidence of such a study, and that its ill-assorted forms of decoration and obtrusive polychromy are not merely without precedent in Wren's buildings, but are destructive of that breadth, simplicity, and massiveness of effect at which he always aimed.

Proceeding next to the authorities which Mr. Burges was instructed to consult as an alternative to Wren, you require us to "furnish specific proof that the designs are *not* in accordance with the style of the best Italian architects and artists of the 16th century." We must decline the attempt, which you would thus impose on us, to prove a negative. The burden of proof lies obviously on those who assert the affirmative, namely, that the designs are in accordance with precedent. We, therefore, request you to name the church or churches in Italy, built or decorated by any of the best architects or artists in the 16th century, which exhibit the following characteristics of Mr. Burges' designs:—

(a) Stone walls and piers veneered in the mass with white marble.

(b) Marble, majolica, gesso, mosaic, bronze and solid gilding, used in combination, and in large masses.

As you affirm that "Veneering the walls of great buildings with marbles has prevailed in all ages and countries from classical times downwards," you must pardon our pointing out that it has not prevailed in the sense here intended. In Roman and also in mediæval times walls were often built of brick or rubble as a core, with veneers of marble on one or both sides, but this construction was designed from the first by their builders. Never in any good period have ashlar stone blocks, carefully jointed and finished, been covered with marble coatings. Such a process would not really be to "translate stone into marble," but to falsify fact by introducing a building material which purports to be solid, and is, in fact, only superficial, and at the same time concealing the actual mechanical construction by substituting false joints for the true. This has no analogy to the use of painting, gilding, or mosaic, to which you refer, as the latter are manifestly mere surface decorations, not building materials deceptively applied.

As for the "surface" of the Portland stone, it was never alleged that Wren attached value to it in itself, for he undoubtedly had it painted; but he did so, it is believed, merely to protect the material (except in the apse, where his colouring was avowedly merely temporary), and took care to avoid deception by painting it in its proper hue, and truthfully showing its joints.

In conclusion, we fully recognise the candour of your declaration, that you desire to be "assisted by fair and definite criticism." That which here is offered we are sure is definite, and we believe is fair. Being supported by the virtually unanimous criticism of the press, we shall hope the time may



before long arrive when you are prepared not merely to hear, but to act on, the opinions thus made known.—We have the honour to be, Mr. Dean and gentlemen, your faithful servants,

(Signed) G. CAVENDISH BENTINCK,  
JAMES FERGUSSON,  
EDMUND OLDFIELD,  
T. GAMBIER PARRY.

### FOOD AND DRINK ADULTERATION.

THE Select Committee appointed to inquire into the operation of the Adulteration of Food Act of 1872, have issued their report. The committee held fourteen meetings and examined fifty-seven witnesses. The report is a very important one, and demands notice and reproduction at our hands. The public, in general, anticipated a far different document, and were fully prepared to have some startling revelations concerning the nature and extent of adulteration in England. We fear they will be disappointed in this respect, for there is nothing very astounding or wonderful in the report beyond the facts that the public were already in possession of. The report, on the whole, is a calm and temperate one, and the conclusions, arrived at, and the suggestions made at the end of the report, are worthy of attention. It is to be feared, however, that the comfort afforded by the verdict of the committee will not be lasting, and it is possible that the good opinion expressed on some matters by the committee, may induce parties to take advantage of it, and improve upon their present practices and widen the extent of their operations. The law, however, is sufficiently stringent to cope with the difficulty, without working injury to the unconscious trader, who has often been prosecuted and persecuted for vending articles of which he had no guilty knowledge. It may be a consolation to be informed that in the matter of adulteration we are cheated more than poisoned, but we would rather have positive proofs of it at all times; besides it can hardly be comforting, after all, to the poor to feel that they are continually cheated in the matter of food and drink. Their condition is often deplorable enough through lack of sufficient means, but to be cheated in weight, measure, and by articles poor in quality, though not poisonous, is too bad. We thoroughly agree with the committee in what it says about public analysts and the want of true chemical knowledge which is so apparent in connection with the operation of the act. The old adage, that "doctors differ," holds perfectly true in respect to the majority of our public analysts, who are often found flatly contradicting each other. We annex below, under their respective headings, the articles reported upon by the committee, with a concluding summary of the legal points, and other matters touched upon:—

**TEA.**—It appears that since the report of 1856 certain grossly-prepared teas have been imported from China, some largely mixed with exhausted leaves and ferruginous sand, and others much too highly faced or coloured; the ingredients used for colouring being chiefly Prussian blue or indigo, powdered gypsum, and turmeric; but the total amount of such teas has been small, and is kept in check mainly by the low price of pure teas. The import of green teas has recently fallen considerably, in consequence, it is stated, of the operations of the Act. Facing tea after the duty is paid was, prior to the Act of 1872, practised to a small extent in this country; but whether in China or at home, the evidence is conclusive that in colouring tea no deleterious matter is used to such an extent as to be absolutely injurious to health; at the same time facing may be employed to conceal tea of a bad quality. Your committee have reason to believe that very little adulteration of tea is practised in this country. . . . While condemning the practice of highly facing tea, your committee cannot recommend that fairly faced green tea should be condemned. Suggestions have been made that a certain percentage should be allowed for colouring matters and other impurities in tea. But your committee consider that the limitation to a very small percentage of foreign matter would exclude from the country some wholesome low-priced teas, which are largely consumed by the poor, and if a less stringent limit were adopted, it might have the effect of increasing

the amount of facing laid upon the better descriptions of green teas. The Act has borne with considerable hardship upon the retail grocers, among others from the following causes: The evidence and samples being entirely in the hands of the prosecution; the defendant being incapacitated as a witness; the sole employment of analysts, to the exclusion of practical judges; the differences among analysts, and the magisterial decisions thereon; and the recent judgment of the Court of Queen's Bench, that under this Act the faced tea known as green teas is adulterated; but more especially that the alleged adulteration has taken place before the tea reached the retailer, and that he is not responsible for the frauds of the Chinese manufacturer. It has been repeatedly suggested that an examination of tea should be undertaken on landing by the Customs, and that all tea found to be seriously adulterated should not be admitted for home consumption. The Chairman of the Customs admitted that such an inspection could be undertaken by the Customs House officers, and that the great bulk of the tea would require but a brief examination, while suspected samples could be analysed at the laboratory at Somerset House. Your committee recommend that this examination should be made, as they believe it would practically stop the sale in this country of tea adulterated abroad, and relieve the retail dealer from the hardship which now arises from his being held answerable for certain manipulations of which he may be wholly ignorant.

**MILK.**—The evidence before your committee points to the fact that, previous to the passing of the Act of 1872, milk was very generally adulterated with water. It has since greatly improved in quality, wherever the Act has been enforced, but the good results in improving the milk supply have not been attained without some serious cases of injury and injustice to milk-sellers. Too high and rigid a standard has been fixed by some analysts. Ten per cent. of milk solids may be more difficult to obtain under certain unfavourable conditions than 12 or 14 under a more generous diet, a warmer atmosphere, and more comfortable lodging. Not only does the quality of milk vary with the food, the breed of cattle, the time of year, and treatment of the animals, but the milk of one cow of the same breed will differ greatly from that of another, managed under a precisely similar system; and further, the first and last pint of milk which a cow gives at the same milking will present all the difference between an extremely poor and an exceedingly rich milk. Allowance should, therefore, be made for these natural variations, which some purely scientific chemists seem to have occasionally overlooked. Your committee are decidedly of opinion that the fraudulent abstraction of cream should be punishable; at the same time they consider the sale of skim milk should be encouraged, as it is certainly a nutritious and valuable article of food; but your committee are unanimous that the sale of skim milk for new should decidedly be regarded as a punishable offence.

**BUTTER.**—Butter sometimes contains too much water, and now and then an unfair proportion of salt; beyond this, it does not appear that adulteration is much practised in this country. Certain foreign butters are mixed with lard and other fats, and there is reason to believe that salt and water, after the butter comes from the farmer, are added in some manufactories abroad. Attempts are being made in France and elsewhere to manufacture artificial butter, chiefly from the fat of animals; if these articles are composed of wholesome materials, and not sold as butter, your committee see no reason to forbid their sale. The slight colouring matter occasionally added to butter, cheese, &c., should not, in the opinion of your committee, be regarded as an adulteration.

**BREAD.**—Bread, on the whole, appears to be fairly pure. Potatoes are used to help fermentation, and rice flour is employed in dusting the loaves. No doubt the chief adulteration is alum, and evidence was adduced showing the great difficulty which the best chemists experienced in discovering minute quantities of alum in bread.

**MIXTURES.**—Your committee have had under their consideration the sale of mixed articles of food and condiments. Amongst them great prominence has been given to mustard and cocoa. The evidence tends to show that these articles have been sold pure, as well as mixed with other ingredients, to suit the requirements of consumers. And it has also been demonstrated to the satisfaction of your committee that the compounds are frequently made quite as much to suit the public taste as to increase the profit of the manufacturers, inasmuch as by using a lower quality of mustard seed or cocoa bean a pure article may be made at a lower price than some of the mixtures. For this reason the statement of the proportion of each ingredient used could not be any real protection to the consumer, and should not be required.

**CORN FLOUR.**—The attention of your committee has been called to the article known as corn flour, in reference to which important evidence as to its purity and its useful dietetic qualities has been given by some eminent medical and chemical authorities, which, however, is denied by one witness. Your committee are fully convinced that the manufacture is quite legitimate, and that, like arrowroot, sago, and other starch foods, corn flour is perfectly wholesome, but that it should not in any case be given to infants without a considerable admixture of milk.

**WINES, SPIRITS, AND BEER.**—The adulteration of wines, spirits, and beer has not been extensively examined under the Act of 1872. The Licensing Act, which was passed in the same year, contained special clauses against the adulteration of these articles. The evidence before your committee is of a negative character, and it may be that alcoholic drinks have slipped through between the two Acts. The adulteration clauses in the Licensing Act are sought to be repealed by a bill that has just passed the House of Commons, and there appears to be no reason to doubt that if this Act is amended as your committee suggest, it will contain ample powers for detecting the adulteration in the drink as well as the food of the people.

With regard to the legal proceedings in cases under such an Act, the committee are of opinion that the accused, as well as his wife, should have the right to be examined; that the wholesale dealer should be summoned equally with the retailer, where the latter gives evidence that the goods have been purchased of the former with *bona-fides*; that, in the matter of analysis, independent testimony should be furnished for the defence—the committee suggesting, when disputed points arise, in the absence of any competent Court of Appeal, that the sample should be forwarded to the laboratory of Somerset House, and that the decision arrived at there should be final; that the presence of the official analyst in court should not be necessary unless insisted upon; that his signature need not be attested; that proper forms should be issued for the sake of greater uniformity, and that a sample properly sealed and secured might be sent through the post, or in any other reasonable way, by the inspector.

Touching the analysts themselves, the committee think a decided want of chemical knowledge has been proved in many instances, and that until training has developed a really trustworthy scientific body, small districts should be consolidated, and fair remuneration offered to really efficient individuals; and that a practical test, beyond mere testimonials, should be required. The committee suggests that the certificate of the School of Chemistry, at South Kensington, might be called for by the Local Government Board.

Upon the question of the appropriation of fines under the Act, the committee are of opinion that they should go to the local authority which has the trouble and expense of enforcing its provisions.

The committee consider that where traders refuse to sell articles exposed for sale, inspectors should be empowered to take samples of suspected goods upon tender of full value; that duplicate samples should be left with the retailer, properly secured; that not less than a month should elapse before the result of the investigation is made known; that the Adulteration Acts of 1860 and 1872 should be repealed, and that in the measure substituted, besides what has been recommended above, a provision should be inserted that the fraudulent abstraction of important properties of any commodity should be punishable. The committee further recommend that it should not be incumbent upon the analyst to give a certificate except where the articles submitted are adulterated or debased, and that the Act should be made compulsory. The general opinion of the committee as the result of their investigation is as follows: "Your committee believe it will afford some consolation to the public to know that in the matter of adulteration they are cheated rather than poisoned. Witnesses of the highest standing concur in stating that, in the numerous articles of food and drink which they have analysed, they have found scarcely anything absolutely injurious to health; and that, if deleterious substances are occasionally employed for the purposes of adulteration, they are used in such minute quantities as to be comparatively harmless. Your committee believe that it is the intention of Parliament that consumers should be protected from frauds, and that they should be enabled to procure the articles they ask for and require. But your committee do not consider that Parliament desires needlessly to hamper or fetter trade, still less to interfere between the buyer and seller with the view of regulating prices, or attempting to assist the consumer in ascertaining the real money value of any marketable commodity.

The Adulteration Act has as yet by no means been generally adopted throughout



the country, and in many places only in a very partial and incomplete manner. Outside the English metropolis and a few large towns the number of prosecutions are singularly small. Some activity was lately manifested here in Dublin, but the prosecutions were mostly confined to milk adulterations, while many of the vendors of adulterated food, escaped entirely scot free, and are still pursuing their nefarious operations with impunity. The necessity for a public prosecution is further and further illustrated every day, for we are witnesses continually of the neglect of even our Sanitary and Public Health bodies to move in a matter that by law devolves upon them.

Since the above remarks were in type, we are pleased to see that some independent and respectable journals are of the same opinion as ourselves in respect to the worth or public value of the results of the commission. It generally happens if a leading English journal speaks favourably or unfavourably on any public question, a score of other English and Irish organs directly follow in the wake, without carefully examining the question for themselves.

We append an extract from the *City Press* of London, which fully bears out the observations we felt compelled to make in the public interest:—

"The conclusions arrived at by the select committee appointed to inquire into the operation of the Adulteration of Food Act will not be altogether reassuring to a good many people who had expected that they would be furnished with some method of protection against Prussian blue, indigo, sand, and turmeric; for tea; rice-flour, potatoes, and alum in bread; lard and grease in butter, and other sophistications, which seem to be regarded by the committee of inquiry not only with complacency but almost with expressions of direct approval. This is the result of fourteen meetings and the examination of fifty-seven witnesses, including a number of 'analysts' and experts so widely differing in opinion, and some of them so obviously incapable of conducting experiments for determining the presence of deleterious mixtures with food and drink, that a considerable section of the report of the committee is devoted to mild strictures on the incompetency of some of the witnesses, and to recommendations that some system shall be adopted for demanding certificates of chemical knowledge before any analyst is in future recognised by the Local Government Board. Whether the feeble conclusions at which the committee has arrived are to be attributed to the confusion of mind caused by the divergent statements to which they had to listen, we are not able to declare; but it is obvious that just such an expression of opinion as is contained in the report might have been expected to follow the process of balancing the opposing testimony. The committee find it the easiest course to leave things as they are, at all events, until competent analysts can be secured to pronounce on samples of goods submitted to them by the inspectors; and they suggest that while chemists are being educated to this branch of the public service, any disputed case shall be decided at the laboratory at Somerset House, and that the decision arrived at there shall be final."

#### GAS AND GAS-METERS IN NAAS.

THE Town Commissioners of Naas were engaged on the 1st inst. in considering Mr. Daniel's account for lighting the town for past year. A discussion arose as to the unsatisfactory working of the meters. In reply to an observation of Mr. Tracy, Mr. Daniel (who was present) stated that the meters were taken away because they stopped registering. He had more than once informed the commissioners that the dry meters, placed where they were, were uncertain guides—they were liable to be affected by the weather. They should be tested by the Dublin Corporation officer. He must decline taking a sixpence less than the amount of his bill as sent in. We borrow the following passages from the report as given in the *Leinster Express*:—

The Clerk read out the various "readings." On the 18th of October, 1873, the meter at Masterson's corner—the one in dispute—registered 2,500, the

one at Caldbeck's 2,600, and the one at Monahan's 3,600. This was when they were stopped. The explanation given to him (the clerk) of the discrepancy between the different readings was that it was owing to the great pressure—that the higher the ground the greater the pressure.

Mr. Daniel said if they were going to cut down his registry they should send some one to check the meter. If the meter was out of order in October last it was out of order now.

Mr. Tracy—What did the meters register that you took away?

Mr. Daniel—Nothing: they stopped.

The Clerk said the reading on the 25th of April, 1874, was 10,500.

Mr. Daniel—Was this reading taken after the contract ended or before?

The Clerk—Before it ended. On the 28th of April the reading was 10,800, and on May 6th, eight days afterwards—and this was in Mr. Daniel's favour—it only registered the same amount.

Mr. Tracy said that he read the meter with Mr. Daniel's man and their clerk, and the reading was 10,800. Mr. Daniel's man afterwards said it was only 10,600. He (Mr. Tracy) examined the meter and it was 10,800, and in a few days it was back again.

The Clerk said after the lighting was stopped the meter registered 7,000; then it went on again—10,500 on the 25th of April, and 10,800 on the 28th April, but eight days after it was only 10,800 still. Mr. Daniel said his collector only came down for money, and knew little or nothing about meters.

Mr. Cantrell said he saw the meters exposed to the weather in the very way Mr. Daniel complained of in Glasnevin, Dublin.

Mr. Daniel said they had to be removed.

After some further discussion as to figures,

Mr. Sargent said if, as Mr. Daniel admitted, all the meters were on the same principle, and all equally exposed to the action of the weather, why did Mr. Daniel rely on the reading of one more than another? He (Mr. Sargent) thought that Mr. Daniel had selected the one that registered well for himself for his reading.

Mr. Tracy said they had been refused to let see the meters at the works.

The Chairman said to sum up this case:—They (the Commissioners) had three meters registering for six months, and those register for the six months 2,500, 2,600, and 3,600. They paid on the average of those three meters, and there had been no complaint that they were out of order. Some of the Commissioners, however, took notice of one meter, and they found it went on registering after the gas had been cut off. They now objected to pay on that single meter; this was the whole point of difference between them and Mr. Daniel.

Mr. Daniel—My answer to your observation is simply this—I deny that that meter is out of order. I ask you to send the meter to the Corporation tester, and let him answer whether it is right or wrong. It was quite possible for a person to turn on the gas, and the meter might go on registering for a long time. He had every reason to believe it went on registering correctly from October to March.

It was ultimately resolved that Mr. Daniel should be paid the same sum as he had received for previous year's lighting. Upon the passing of this resolution, he intimated that he would not again light their town unless they put up proper meters. It is to be presumed, from what appears above, that the meters were supplied from the "works" of the contractor, and if such be the case, he, we think, should be responsible for their accuracy of measurement.

Respecting the statement as to the Glasnevin meters having to be removed, Mr. James Kirby, in a letter to the *Leinster Express*, writes thus:—

"For the information of the Naas Commissioners and the ratepayers, allow me to state that the gas meters used for the public lamps in Glasnevin have not been removed, but remain where they always were—underneath the lanterns, exposed to the weather."

#### THE PARISH CHURCH OF DRUMBO.

THE parish church of Drumbo has been reopened after undergoing extensive alterations from designs by Mr. Wm. J. Watson, architect, Newry. The old roof has been replaced by an open-timbered one with massive principals and traceried spandrels. Benches of pitch pine varnished have been substituted for the old-fashioned square pews, and by a new arrangement large additional sitting

accommodation has been provided. A new flooring also has been laid down. The church will be heated by hot-water apparatus by Messrs. Musgrave, Belfast. Messrs. McNeill will supply handsome coronæ for oil lamps. Mr. Thomas McKeown was the contractor. Cost about £1,000

DUBLIN TRAMWAYS.—The inhabitants of North Earl-street have memorialled the City Fathers for permission to lay down, at their own cost, a single line of rail in that street and Talbot-street, so as to form a junction with the Clontarf line at Lower Gardiner-street. We have already expressed our opinion that North Earl-street and a portion of Talbot-street adjoining is quite too narrow for even a single line of tramway, being only about 20 feet in width.

MONOGRAPH OF CORMAC'S CHAPEL.—The *Athenæum* has the following paragraph:—"Mr. Arthur Hill, of George-street, Cork, sends us his 'Monograph of Cormac's Chapel, Cashel,' illustrated with drawings, photographs, and plans, sixteen in all, and comprises details of enrichments, &c. This issue continues a series three parts of which we have before commended, 'On Ancient Irish Architecture,' and, independently of the archaeological interest of the subject, will be of value to the student who wishes to acquire knowledge of a peculiar architecture, which, so far as it goes, is second to none in spirit and beauty."

SANITATION IN THE READING CLOSET.—On Monday evening, 15th ult., a paper on this subject was read before the London Association of Correctors of the Press, by its Treasurer, Mr. G. Chaloner, F.C.S., &c. Commencing, for obvious reasons, with a resumé of Dr. Smith's report on Readers, their health, and their "dens," Mr. Chaloner stated that his own inquiries led him to the conviction that Dr. Smith was perfectly right in his general conclusions, viz.—1. That Readers were the farthest removed from good health of all employed in printing offices, travelling generally to the goal of consumption; 2. That this was due to preventable causes, and specially to the circumstances under which they had to work. Instances were given by the lecturer of the "hutches," ranging from 240 to 500 cubic feet capacity, inhabited by Readers, and it was broadly hinted that a cell in Pentonville Prison—of which a model might be seen in the Exhibition—was preferable in most points to an average Reading closet. Light, draughts, warmth, cold, gas-burners, were rapidly reviewed as important matters. Cold and draughts were of special consequence to persons employed in sedentary occupations, and an instance was quoted of a Reader who was laid up by draughts, but fortunately recovered, while a wretched compositor who took the draught after the reader had done with it, was killed by it. Finally it was insisted that at least as much air-space ought to be provided by law for an honest man as for a scamp who found his way into jail, or a tramp who got into a workhouse, and the following "points of perfection" were indicated as what readers should strive after:—1. A cubic space of 1,000 feet per individual; 2. A window into the open air; 3. A separate door per closet; 4. A good argand burner; 5. A ventilating arrangement, not to be pasted over; 6. Steam or hot water pipes in winter; 7. Any other comforts that can be secured. Hints were given as to the remedy of defects, and a ground plan was shown—which excited much interest—of a floor space of 81 square feet, 9 ft. x 9 ft., on which the proprietors of a religious newspaper had ingeniously contrived to pack four reading-closets. Their total capacity was 1,260 cubic feet, and they were occupied by four men and three boys, who at night had four gas jets to assist them in consuming the air.

#### TO CORRESPONDENTS.

STUDENT.—Read Mr. Bindon Stoney's work, "The Theory of Strains in Girders and other Similar Structures." You can order it through any local bookseller.

CITIZEN.—We are informed by a London correspondent that the subject of putting the Corporation of Dublin in commission is seriously canvassed in Parliamentary circles. We would not wonder in the least if the intention is realized before long. It would be one of the best purification schemes we know of, and on the score of economy it could be recommended.

SANITAS.—The question is pretty well ventilated in our columns at present.

"OLIVER GRACE."—He was one of the Dublin architects who sent in designs for the building of the Royal Exchange in 1769. He lived for some time at 35 Fleet-street, and we believe also in Capel-street. His name occurs in Wilson's little Directory for 1786 thus, "Oliver Grace, Projector," i.e. architect.

MALLEET.—We believe the paper you name is still alive. Its original price when started was 3d.—it is now 6d. I we must decline to answer your second question just now.



### THE CONSTRUCTION OF SLAUGHTER-HOUSES.

It is no doubt well remembered by many that a few years ago our Borough Engineer brought up an elaborate report upon the question of public abattoirs, but the recommendations made were never carried out. Like the Main Drainage Scheme, it served for a considerable time as a stock article for debate. We treated in this journal lately of noxious trades and the inspection needed to keep them in a proper state of management. The Government will be soon again moving in the matter, and callings that are fraught with danger to the health of the community when carried on in crowded towns and cities, are likely to receive closer attention than heretofore. The London Corporation feels that it is incumbent on them to put the slaughter-house system on a better footing within the city than it has previously been in. The Cattle Markets Committee brought up a report recommending that they should be authorized to construct from time to time, as might be required, twenty additional slaughter-houses in Copenhagen-fields, upon ground on the east side of the market contiguous to the Great Northern Railway, at an expense not exceeding £26,000, including roads and drains, and to let the same upon lease for seven, fourteen, or twenty-one years, at rents varying with the size, from £130 to £36 per annum.

Mr. Fricker, in moving the adoption of the report, said it was very probable that some arrangements would be made to extend the time in respect to the abolition of slaughter-houses. No doubt, under certain sanitary regulations, their existence would continue in suburban districts, but the authorities would, as early as they could, insist upon their being closed in the crowded districts of the metropolis, where there were 1,500 private slaughter-houses. His opinion was that in crowded districts slaughter-houses were a nuisance, and in confirmation of this view he read a report by Mr. Liddle and Dr. Tidy to the Commissioners of Sewers on the state of the slaughter-houses in the City, which they had carefully inspected; their visit being planned to take place at a time when slaughtering was being carried on and when they were not expected. The report showed *inter alia*: There are twenty-eight licensed slaughter-houses in the City of London; the sites on which the slaughter-houses are built, and their surroundings, in the majority of cases, are exceedingly objectionable; the entrances, in the majority of cases, very narrow; the ventilation, with one or two exceptions, very imperfect; the light very deficient. Every care was taken by the occupiers to keep the slaughter-houses clean, although, from existing circumstances, such as the condition of the flooring, and the porosity and imperfect state of the walls, anything like proper or complete cleansing or cleanliness was an utter impossibility. The report then went on to say:—

"The following are the necessary arrangements which should be adopted for the better regulation of slaughter-houses:—The slaughter-house should be a detached building, and should have an open space of several feet in width between it and any dwelling-house. It should not be so situated in a public thoroughfare as to enable passers-by to see what is going on in the inside. The nuisance in Aldgate High-street to foot passengers is very great, owing to the offensive smell, the dirty condition of the pavement, the drippings from the entrails, the carrying of the carcasses, and the wheeling of barrows filled with dung and other offensive matters along the pavement. The entrance to the slaughter-house should be of such a width as to occasion no difficulty in getting the animals into the slaughter-house. Arrangements should be made for insuring a thorough ventilation, which could easily be effected if the slaughter-house were a detached building. The walls should be constructed of non-porous material, and of such a nature as to allow of their being efficiently scraped and then thoroughly washed with soap and water. The drainage should be complete in every respect, the drains being well trapped, and the iron gratings over the traps being firmly fixed, so as to prevent their

being removed, whereby the washing of all *débris* and garbage into the drains, which would be liable to choke them, may be prevented. A covered receptacle to contain the garbage and all refuse should be provided, and this should be emptied daily before seven a.m. The flooring is best made of asphalt, because of its non-porous character, or (although we consider this very inferior to asphalt) of large York paving stones, well joined together by cement. The cement, however, requires to be frequently renewed. For the proper cleansing of the floor it should be first well washed with cold water, then with lime and hot water, and then should be allowed to get perfectly dry before it is pointed. If these precautions are not taken, the cement will come out in a few days, and the floor be in as bad a state as it was before. The floor should be so constructed as to allow the entrance to the drain being made at the lowest part of the incline. The water supply should be abundant and at high pressure. The tap or taps should be placed at the highest part of the incline, and should not be at a greater height from the floor than is sufficient to allow of a pail being placed underneath. In this way, by merely turning the taps, the slaughter-house can be thoroughly washed, and the water will readily flow into the drain. Seeing in how many respects these conditions are unfulfilled in the existing slaughter-houses in the City, we are decidedly of opinion that no private slaughter-houses should be allowed in the City, and that every effort should be made to bring about the establishment of public abattoirs."

The committee (continued Mr. Fricker) had thoroughly considered this question, and their opinion was in conformity with that of the Committee of the House of Commons—that slaughter-houses in crowded districts ought to be diminished in number; and that the Corporation ought to furnish additional accommodation at the Copenhagen-fields. The extent of the land the committee propose should be appropriated for the slaughter-houses was 9½ acres. Fifteen persons—all of the highest respectability—were prepared to carry on business in the proposed slaughter-houses.

The debate was adjourned, after some further discussion, to another day.

### A TILT WITH THE TOLKA.

THE "Classic Tolka," sacred to the shades of the Swifts, Steeles, Addisons, Parnells, Tickells, Delanys, and other poets and philosophers of the days of Anne and the first two Georges, is sadly falling from its once high estate. Delville still lives, and its present owner is proud of its associations; and the Botanic Gardens still serve to remind us of poetical fancies and musings long past. The Finglas river, once silvery and pure, receives in these days the sewage of villages and factories and the drainage of churchyards. Flowing on from Drumcondra, between Richmond and Clonliffe, it receives an accession of polluted matter, and ere it reaches the olden bridge of Ballybough, who wonders it has been transformed into a "tremendous nuisance?" Poor Tolka! once "classic" and pure, you are only fit now to wash the banks of Mud Island, whose King gloried in seeing a bailiff ducked to death in your bosom.

Next week or month we are in hopes of seeing an astounding nuisance discovered at Ball's Bridge or Ringsend. Then we will have a singular triangular duel fought out on the head of the Anna Liffey and its two principal tributaries. The case will stand thus:—Liffey, No. 1, "An abominable nuisance;" Tolka, No. 2, "A tremendous nuisance;" Dodder, No. 3, "An astounding nuisance."

In conclusion, we humbly beg leave to relegate these three rivers to the kindly consideration of Nos. 1, and 2, and 3 Committees of the Corporation. Whatever committee brings up its report first on one of these three rivers will be entitled to take up the question of the Poddle and the nearly forgotten Bradogue, which empties its sewage somewhere on the northern embankment.

The annexed report of the proceedings in the North Dublin Union, *in re* the Tolka, will not form an unfitting sequel to our subject:—

### NUISANCE AT BALLYBOUGH.

Mr. Franklin, T.C., called attention to what he termed the tremendous nuisance in the Tolka River at Ballybough. Memorials on the subject had been of no avail. The stench was positively insufferable, and there had been two or three deaths from typhus fever in the locality.

Mr. Crawcour asked was it worse than the Liffey?

Mr. Reilly said it was infinitely worse to his knowledge.

Mr. Franklin said that every evening numbers of persons came to him begging him to use his influence to have the nuisance abated. If something were not done they could not really live in the neighbourhood.

The clerk intimated that the relieving-officer had reported on the subject already, stating that the nuisance existed in three districts—first under the control of the North Union, the second under the Corporation of Dublin, and the third under the Clontarf Commissioners. Magrane had got instructions to serve notice on the tenants occupying the land in the district over which the guardians had control to abate the nuisance, but a fall of rain immediately after rendered any further action unnecessary.

Mr. Franklin said that the fluid coming down the river from two or three large establishments was as black as ink, and he thought the guardians, as the nuisance authority, had power to deal with such a matter. If something were not immediately done he was afraid a great many deaths would occur in the district.

Mr. Magrane (relieving officer) stated that the greater part of the nuisance existed in the Corporation and Clontarf Township districts.

Mr. Franklin stated that, though a member of the Corporation, the Clontarf Township Board, and the Board of Guardians, he could get nothing done.

Ultimately, on the motion of Mr. Franklin, seconded by Mr. Crawcour, the relieving officer was directed to have the nuisance abated within the district under the control of the guardians, and to communicate with both the Corporation and the Clontarf Commissioners as to the portions within their jurisdiction.

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### ILLUSTRATION:

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# The Irish Builder.

VOL. XVI.—No. 351.

Unsanitary Dublin One Hundred Years Ago.



It is instructive always to compare the present with the past, whether the period between includes the memory of one individual or exceeds it. In some matters the nation has made a great stride in improvement within half a century—yea, even within a quarter of a century,—while in other matters where an absolute necessity existed for progressing it will be found in some instances there has been a stand still, if not an actual retrogression.

We purpose now to take a brief glance at the sanitary state, or rather unsanitary condition, of Dublin a century ago, and deduce, or leave others to deduce, some lessons therefrom. It will, perhaps, be a consolation to

some members of our Corporation to find that this city was not in a sweet condition in their grandfathers' days; and they may console themselves with the thought that, as worthy grandsons of worthy grandsires, they have done their best to keep Dublin in this respect unchanged.

Dr. John Rutty in 1772 describes Dublin as being then nearly five and a-half miles Irish in circumference, two and a-quarter miles long, and about one and a-quarter mile broad. He states that it is very well watered by the Liffey, which then divided it into two unequal parts, but now less unequal. Some other clear rivulets then supplied the city with water, which are now absorbed in our sewerage or contaminated. The low situation of the city exposed the lower parts of the town in Rutty's time to inundations—a disadvantage, in his opinion, more than compensated "by carrying off the filth and stench of the city, and both by the flow of the river and the flux and reflux of the sea therein producing a constant current of air and ventilation—a great moment to the health of the inhabitants."

Our author considered the air of the city was not contaminated by vapours from the adjacent country, the sea coast being generally dry sand, and there being very few standing lakes or bogs in the county; yet he believed that the air of the city was greatly vitiated by other mixtures, some of which it was in the power of the authorities to prevent. In common with all great cities, there was, said Rutty, "the foggiess from the smoke when there is no wind to dissipate it; the dirtiness of our streets, which is so great that one is frequently in danger of being up

to the knees in crossing them; the putrid animal effluvia exhalng from charnel-houses and dung-hills in the middle of the city and in several of the avenues, and dead animals, dogs, and cats and the excrements of living ones, butchers' garbage and blood, and burying-grounds likewise in the middle of the city, where the earth on the graves is frequently so loose, and the bodies so near the ground, that the scent has been noxious in a hot summer; to which add the great crowds of the poorer sort in one house [overcrowding], sometimes several families in one room—a very frequent occasion, undoubtedly, of propagating therein fevers; and, were it not for the daily ventilation from the flux and reflux of the sea in the river passing through the city, especially that from the W. and S.W. winds, together with the rains frequently attending (washing our streets), it is not to be doubted but every hot summer would be attended with fever little less than pestilential. But several of the nuisances above mentioned might be removed by the vigilance of the magistrate, to rouse whose attention to such matters these observations are made, which undoubtedly would not a little contribute to the health of the people, whereas at present this is perhaps one of the worst regulated cities in Europe; and indeed did not the providence of God, who 'bringeth the winds out of His treasures,' on this and other occasions watch over us with a more tender regard than we do ourselves, it were no rashness to affirm that we had been long since depopulated."

This is a picture of the City of Dublin a century since, by a very observant writer; and the same picture with little exception, might be drawn to-day. During the *régime* of the "Reformed Corporation" every statement of Rutty could have been met with a companion picture. In addition to the nuisance in the streets, the butchers' shambles and the graveyards exhibited their abominations; and the Liffey, from being comparatively pure, became one elongated cesspool, and continues so still.

Inundations from the Liffey, the Poddle, Dodder, and other tributaries were common in the last century, and were occasionally witnessed in the early part of the present century. In the inundation from the Liffey in 1792 the low grounds behind Sir John Rogerson's-quay and Ringsend were completely laid under water, and not only boats plied, but ones with sails as well as oars. In 1802 Ormond Bridge and Ringsend Bridge were swept away by the floods, and several parts of the city were then laid under water. The Poddle at that time inundated with water several places on its course, and boats had to ply in Patrick-street near the Cathedral. We are not now visited with serious floods, although still high tides in the Liffey occasionally do damage in basement storeys of houses along the line of our Quays.

Rutty contributed to the history of our water supply by publishing an account of both the plain and medicinal springs of the County Dublin, and the mineral waters of Ireland generally. He also supplied additional information in his "Natural History" of the county. Besides a great number of "brackish, saline, and laxative springs," and several others of soft water, Dublin a hundred years ago, and less, was supplied for the most part with water from rivulets from the neighbouring mountains, and partly from the River Liffey. Both were a soft water and drinking

supply. He speaks of that taken up near Island Bridge as being suited to keep well on long voyages, and so it was consequently to some extent procured for ships. Part of the south side was supplied from the old city basin, and as far back as 1670 new pipes were laid to carry water from thence.

Speaking of the quality of the supply in 1772, Rutty says it was "frequently ill-tasted, partly from the pipes of wood in which it is conveyed, which rot and sometimes breed worms; and as the water lies exposed in several places before it is received into the pipes, dead dogs and other animals are sometimes thrown into it, and dirty clothes washed in it, to which may be added, the mills and other offices for divers manufactures erected on the banks of the Liffey, &c., which in some degree contaminate the water [to a very great degree, indeed], so that he who would drink his water pure should supply himself from the springs, some of which are very good." Very good advice indeed; and we trust that it was followed, for water that contained the decomposing bodies of dead cats, dogs, and strangled or still-born infants, perhaps, with the addition of having served the purposes of the washer and charwoman, could not be considered very pleasant to drink.

Speaking on diet, Rutty considers that the great quantities of flesh and fish consumed by some is one cause of the frequency of fevers, but that it is probable that the mischiefs entailed on the inordinate use of animal food are in some measure prevented among the poor here by their liberal use of butter, milk, potatoes, oatmeal, and other vegetable diet. Excellent cider was manufactured and drunk in Dublin upwards of one hundred years ago, but even in Rutty's time French claret became almost the sole liquor which all above the lower classes consumed in large quantities. A computation was made in 1753, which showed that 8,000 tuns of this wine were imported, the bottles alone of which were computed to cost £67,000. Whiskey amongst the lowest ranks had increased enormously a century since. Sir William Petty remarked in his time that the number of ale-houses to the number of other houses was almost one-third; and from a computation made of the city and liberties of Dublin, taken in 1749 at a medium for some years preceding, it appeared that the public-houses were as follows: ale-houses, 2,000; taverns, 300; brandy shops, 1,200; total, 3,500.

Now, the population of the city, by Sir William Petty, in 1682 was computed to be about 60,000, but these figures cannot be right. In 1753, by a computation made, it was found since 1711 the increase of houses was 4,000, which, with an average of 8 inhabitants to a house, gives an increase of population of 32,000. Then we have to compare the statement of the population of Dublin in 1728 at 146,075 with that of the city and its suburbs in 1777, put down at 137,208, which was an average of 8 inhabitants to a house, the number of houses being 17,151. The number of houses returned in Dublin in 1788, according to the enumerations of the hearth money collectors, was 14,327, which gives a population, at an average of 8 inhabitants to each house, of 114,616. In 1798 the population was computed at 172,084 souls, in 16,401 houses, on an area of 1,246 acres; and, in 1805, the Rev. James Whitelaw, one of the authors of a "History of Dublin," put down the population at 170,094



souls. In 1813 an imperfect enumeration under a Legislative enactment returned the population at 175,319. In 1821 the population of the parishes and parts of parishes within the Lord Mayor's jurisdiction and also within the canals was 175,585, or 13,578 houses; of the parishes and parts of parishes within the canals, whether within or without the Lord Mayor's jurisdiction—houses, 18,116; inhabitants, 224,317. Of the parishes and parts of parishes included in the list, and also of the parts of the three city parishes without the canals—houses, 18,567; inhabitants, 227,535. Ten years later, 1831, the population was returned at 203,650. In 1834 the population is shown to be 240,000, inclusive of all religions, and in 1841, the year the first Town Council of the "Reformed Corporation" was elected, the inhabited houses are returned at 20,109; families, 49,511; persons, 232,726. The census of the city of Dublin in 1851 shows a total of 258,361, being an increase of 25,635 over that of 1841. The census of 1861 shows a total of 254,293, being a decrease on the census of 1851 of 4,068. The census of 1871 shows a total of 246,326, being a decrease of 7,967 on the census of 1861.

We give the above figures so that a comparison may be made with the county and city of Dublin a century since and at the present time. In 1772, Rutty thought it seemed almost impossible to arrive at the real number of the inhabitants, so he writes: "But perhaps we may justly expect a much nearer approach to the truth from the number of houses, which, A.D. 1753, was 12,857, which multiplied by 8 (a very moderate computation of the medium of souls in a house when the great number of families crowded together in one house here is considered) gives 102,856 for the number of souls in Dublin, including Papists and Protestants." Reckoning 10 persons to a house our author considers not too much, which would give to Dublin in his time 128,870 souls. The bills of mortality in Dublin a century ago, like other places, were very defective. The baptisms or births of Dissenters, whether Protestant or Catholic, were not registered, so the burials bore a much greater proportion to the deaths than they would otherwise. Great numbers were buried outside the city, and were consequently not registered, and there was scarcely a village about the city, as Rutty very truly observed, but had monuments for the dead of Dublin, "and some of them bury 250 or more of these dead in one year; and, therefore, here are more burials not registered than in London. Consequently, the accounts both of our births and burials are vastly short of the truth."

The curse of drunkenness was very prevalent, indeed widespread, a century since in Dublin. The legislature interfered in London to put a restriction upon the sale of spirituous drinks, and a like interference was loudly called for in Dublin, but it did not come. To-day we behold the Legislature facilitating the traffic in debasing liquors, although it is aware that two-thirds of the crime, pauperism, dirt, and disease that afflict our common humanity are traceable to drink.

In conclusion, however, let it be understood that a dirty city will be found to be an unhealthy and a drunken one; and that, as yet, we have not much to boast of in a Sanitary direction between Dublin of to-day and one hundred years ago.

## PUBLIC WORKS IN IRELAND.\*

## SECOND NOTICE.

In the Appendix B, Mr. Robert Adair, C.E., reports in detail the works executed on the Ulster Canal during the past year, which have mostly been confined to repairs incidental to its maintenance, and the completion of some reservoir works. The inspector also reports on the Tyrone Navigation, which is stated to be in good order, but the growth of weeds seems to be increasing, and the cost of their removal a heavy item in the annual expenditure. In reference to the Ulster Canal, we may remark that the commissioners stated in their report, though it had been re-opened for traffic for twelve months, they regretted to find that up to the present a very limited use had been made of it as a means of carriage, although a moderate scale of dues was fixed, with a view of giving encouragement to the trade of the district. The commissioners believe that any improvement in the amount of traffic will depend chiefly on a thorough trade between the north of Ireland and Belfast and the towns situated in the vicinity of the canal and on to Lough Erne, which can only, in their opinion, be effected by the assistance of steam tugs, which are not yet used on Lough Neagh.

In the report of Mr. Edward H. Alcock, Harbour Master, Dunmore, we have a statement of some importance. As it is brief it may be given in his own words:—"The past season will chiefly be remembered on account of the large quantity of mackerel taken, and the immense shoal of herrings which visited this coast during the 'fall' of last year. There is no doubt that if the fishermen of this locality had the same description of boats and nets as are usually found in England and Scotland, they would take an enormous quantity of fine fish; but, even as it was, upwards of 100 small craft were employed during the months of October and November, drifting for herring off this harbour, and with many drawbacks managed to capture a considerable amount of this prime fish. The salmon season in the past year in Waterford Harbour was a fair average one, and an unusually large quantity of peal was taken towards its close. Shell fish, generally speaking, was scarce throughout the year. The past season has not been a good one for the large cutters trawling out here; however, within the last two months fish has been more abundant, and whenever the weather was favourable the trawler had no reason to complain." The report, which is dated March 14th, of this year, conveys a lesson which ought not to be lost sight of. An enormous quantity of fine fish is always to be had on our coast, if our fishermen were provided with better boats and nets. For lack of these appliances an immense quantity of cheap and nutritious food is lost to our people, and a national industrial resource remains unutilised. French, Manx, Cornwall, and Scotch fishermen are to be found frequently on our coast yearly, while our own fishermen stand often helpless and with folded arms on the beach. A little government encouragement would develop our deep sea and coast fisheries, or an honest limited liability company, under proper auspices, could be worked with advantage to the shareholders and the public at large.

Captain Henry D. Burney, Harbour Master, Howth, gives a return of cargo, vessels, and

fishing boats that have frequented Howth Harbour during the year 1873—Large vessels, 490; tonnage, 1,505. Fishing boats, 598; tonnage, 8,940. This is in brief the whole of the report of the Harbour Master. We are not told how many of the fishing craft were native or foreign, but we may assume that two-thirds of the vessels were belonging to ports outside of this island. The Howth fishermen do not catch much fish for the market; they are rather the buyers and bringers to market of other fishermen's catch.

Mr. P. J. Dodd, Superintendent, reports on the state of the Lower Boyne Navigation, and on works of repair and maintenance. He states that the weeds in the several cuts have not been of so strong a growth as in previous years, and they have in all cases been well dragged out of the bottom, which lessened the tendency to spreading and growth. He states that over 100 trees, large and small, have been cut down along the Oldbridge and Stalleen cuts of the canal, and he thinks their removal will leave banks and ramparts more secure.

Mr. Richard A. Gray, C.E., reports on the state of the Boyne Drainage Maintenance, which has progressed satisfactorily as regards their efforts upon the land, although more slowly than could be desired.

Mr. Robert Manning, M. Inst. C.E., reports at length on Piers and Harbours, alluded to in our last issue. Under Fishery Piers and Harbours, the serious settlement that took place in the works at Tarbert Pier, County Kerry, is noticed, and the means taken to secure the pier from further danger, of which, in the opinion of the engineer, there are still certain indications of further settlements.

In connection with the account of the work under execution at Inishboffin Pier, County Galway, it is mentioned that there are many families at present sick and in great distress on this island, the men seeking employment, but cannot be employed on such a small public work as that now proceeding. Poor Inishboffin has been a constant sufferer from famine, want of work, and other causes.

On the Drainage Maintenance, County Mayo (Lough Lannagh district), Mr. Manning states that the works in this district were completed last August. Among other works here, two stone bridges were erected at Ballynew, in lieu of a timber accommodation one which had entirely decayed, and the repair of several small bridges and gulleys throughout the district.

Mr. J. M. Merrick, the Inspector, reports in detail on the state of the Upper Shannon Navigation, from Shannon Harbour to Lough Allen; also the Boyle Water Navigation, from its junction with the Shannon to Drnin Wharf. The general state of harbours and wharves is reported to be in a good state of preservation.

The coal traffic is stated to be steadily increasing from the Arigna and Spencer Wharf Coal Pits, a wire tramway being completed from the latter pit to Lough Allen. The amount of minerals passed through the Lough Allen canal for the year ending March, 1873, amounted to only 382 tons of coal, and 154 tons of iron ore; whereas in the year ending 21st March, 1874, 3,000 tons of coal passed through the canal. This is cheering intelligence, and we hope that the amount will be doubled by next year.

Mr. William Molloy, Inspector, reports on the state of the works and repairs on the

\* Forty-second Annual Report from the Board of Public Works, Ireland. Dublin: Alexander Thom. 1874.



Lower and Middle Shannon (Limerick District) and the Maigue Navigation, which appears to have been carefully maintained during the year. At Foynes Harbour the traffic at the station is stated to be on the increase.

Coming to the Appendix C, the Inspectors' report on Landed Property Improvement furnishes some interesting items. In the north-western district, comprising the counties of Fermanagh, Leitrim, and Sligo, the Inspector, William P. Prendergast, reports that applications for new loans have not been very numerous, and have been chiefly for building purposes. He states that the high rate of wages and the actual scarcity of men even when the larger amount is offered causes many proprietors to decline proceeding with improvements that were contemplated or commenced under different circumstances. He speaks of the difficulty of procuring good contractors, builders, carpenters, and masons in the country districts, and says, were it not for "such excellent establishments" as Messrs. Martin's on the North Wall [Dublin], Mr. O'Connor's, in Sligo, and some others in Belfast and Derry, where all the building materials can be had, except the masonry, with speed and certainty, very few would attempt to build. There are many who may doubt Mr. Prendergast's opinion, but the statement made by him is worthy of the attention of builders in general as well as those intending to build. The Inspector says there is also a reluctance on the part of many proprietors to lay out money on tenants' holdings, and the chief expenditure is now on land in the owners' occupation.

The want of substantial slated cottages for labourers is, we are glad to hear, being felt by many resident landlords, and we hope that there is an increased exertion evidenced every day to have a much higher class of dwellings created on their estates than formerly. It is stated that Lord Belmore, in the County Fermanagh, has expended the whole of his loan of £1,000 on "some thoroughly substantial and convenient cottages erected under his own eye, on his Castlecool estate." Colonel Cooper has built "some good houses" in Sligo, both with stone and concrete similar to Tall's patent. The Inspector believes that the introduction of concrete is an immense benefit, as the freedom from damp makes the houses much more comfortable than those built of stone, and in many situations the cost, he states, is much less. We have always had a good opinion of concrete properly manipulated, and can recommend it for workmen's cottages, but we have no means at present of judging how far Colonel Cooper's houses are successful examples of concrete building.

The Inspector also reports that Mr. A. Loftus Tottenham, of Glenfarnie, County Leitrim, completed some cottages last year "in excellent style" with money advanced by the Board, and obtained the Royal Agricultural Society's gold medal for the Province of Connaught. In this instance we have an extract from the report of the society's judges on these cottages, which affords us some idea of the plan and arrangement. They are built upon the plan which took the prize given by the Duke of Abercorn, with the exception of one or two alterations in the details, which appear in plans furnished by Mr. Tottenham. The houses are built with light-coloured sandstone in broken ashlar, with punched dressings, overhanging eaves, and ornamental ridge tiles, and are

said by the judges to have a "particularly substantial and highly-finished appearance."

The improvements introduced by Mr. Tottenham consist of a porch 3 ft. 6 in. deep, which adds to the warmth of the living room; a rising of the pitch of the roof 2 ft. higher than is shown on the public plan,—this alteration improves the upstairs rooms as well as the external appearance; and by an alteration in the plan of the upstairs back room, whereby the closet at the head of the stairs is thrown into the room, a good, useful bedroom is obtained in each cottage, instead of a closet in each cottage and one over long bedroom between the two, but convertible to either. There is a fireplace in the bedroom of each house, a good cottage range with oven in kitchen, and shelves and cupboards are provided to a greater extent than usual. The cost of each cottage was £152, but the convenience of the material and other exceptional circumstances of the locality enabled Mr. Tottenham to do the work at the price named, and supply a good cottage at the same time. The society's gold medal for the Province of Connaught is a feather in the cap of Mr. Tottenham, and, accepting the report of the judges as a fair and impartial one, the recipient has worthily earned the prize.

A notice of the remaining reports of the Inspectors on Landed Property Improvements we must hold over till our next issue, as we have already exceeded our limits.

#### PAROCHIAL RECORDS IN IRELAND.

In the House of Lords on Tuesday, the Earl of Belmore asked the Lord Chancellor if he could give any assurance that her Majesty's Government would, during the recess, take the matter of providing for the safe custody of the Parochial Records in Ireland into consideration, with a view to legislation early next session. He said it was a matter concerning not merely the members of the Protestant Churches in Ireland, but affecting a large number of other persons, and was a matter of no inconsiderable importance. He wished to take the present opportunity of asking the question, so that the public in Ireland might know what was going to be done in the matter?

The Lord Chancellor, in reply, said he was very glad to give his noble friend the assurance he asked for. The documents in question were really National documents, and he thought it was one of the first duties of the Government to provide for the safe custody of such documents. About that he did not think there could be two opinions. The only cause of delay up to the present time had been the consideration of the precise form in which they could be secured consistently with accessibility, and how far the emoluments arising from consulting them could be compensated for.

#### THE ARCHÆOLOGICAL ASSOCIATION AT BRISTOL.

THE proceedings of the Bristol Congress of the British Archæological Association will include:—August 4th—A visit to St. Mary, Redcliff, under the guidance of Mr. George Godwin; the Temple Church, and St. John's Church. August 5th—Clapton Church, Cadbury Camp, and Tickenham will be visited. August 6th—The Congress will assemble at the Mayor's Chapel, and afterwards attend an examination of the Cathedral and its monastic buildings, the Friaries, and the church formerly belonging to the Priory of St. James. August 7th—Bradford-on-Avon will be visited, and under the guidance of Mr.

C. E. Davis, F.S.A., the Congress will visit the Saxon church at Bradford, the parish church, the duke's house, and next proceed to Wraxhall House, and Chalfield. August 8th—Thornbury Castle will be visited, under the guidance of Mr. Edward Roberts, F.S.A.; and, later in the day, Iron Acton Cross, the church, manor house, and camp at Sudbury. August 10th—The fortifications on Worle Hill, and Woodspring Priory will be visited, and afterwards the party will proceed on to Axbridge and Cheddar. The programme of hospitalities looks well, and doubtless the members will be satisfied with the kindness they will receive during their visit to the above-named places. There will be a reception at the Council Chamber by the Mayor and Corporation on the opening day, and the members of the Congress are invited by the President to the inaugural dinner given by him at the Royal Hotel before delivering his address.

#### OCTOGENARIAN THOUGHTS.

"Oh, for one hour of blind old Dandolo,  
The octogenarian chief, Byzantium's conquering foe."

LORD Byron has immortalised Enrico Dandolo in the above lines, yet how often in modern history do we meet with perhaps similar fine old fellows.

Lord Brougham, at the age of 82, presided in Glasgow over one of the largest social gatherings of his time. Lord Lyndhurst, at 88, poured forth torrents of eloquence in the House of Lords, for periods averaging four hours at a time. The King of Prussia (now Emperor of Germany) invaded France, and cheerfully submitted to all the *contretemps* and the horrors of a gigantic war at the age of 75.

Thiers accepted and realized the government of France for a short time in one of the most eventful periods of its history, when nearly at the age of 80; but men of less buoyant mind and less experience would have shrunk in terror from the task.

These examples tend to show what is possible from unconquerable and enduring will, and it is a joy to think such live on and on to advanced age, proving how well they have acquired mastery over themselves.

But all things earthly have a limit. Men of the calibre we have adduced do not fret and fume over bygone things, while in everyday life we meet with perhaps their equals—they who have lived long enough to feel the influences of their surroundings, but the voices of their young-day associates are hushed—wife, perhaps children, are removed for ever. New phases arise in which they feel no companionship; it is, therefore, not singular that we have examples of the highest ability expressing themselves as the late Judge Crampton did, in the following remarkable words, in answer to an address from the Bar, on the occasion of his retiring from the Bench:—

"There is a time for all things. My advanced age invites retirement. It is becoming that, after twenty-five years in office, I should retire for younger and abler men; and a still higher call tells me that there should be an interval of serious rest between my departure from the bustle and excitement of forensic occupation and that final departure which opens to a rest that never ends."

The Emperor Charles V. was induced to resign his crown and betake himself to religious retirement, from the following saying of John Voldesso:—

"Oportet inter vitæ negotia et diem mortis, spatium aliquod intercedere." (It is fit that between the business of life and the day of death, some space should intervene.)

Perhaps it were better such should be. There are few, except where ambition urges on, care to interest themselves in toil and turmoil (as was their wont in earlier days) when approaching that term where all must succumb sooner or later. Providence has wisely willed it thus in order to afford to them a fitting time of preparation for that journey whence no traveller returns.



## PUBLIC RIGHTS AND PUBLIC NUISANCES.

## THE POLLUTION OF RIVERS.

## TENTH ARTICLE.

THE subject of river pollution is a very important one in all its bearings; but just now in relation to this city the question is invested with more than ordinary interest. Nuisances are sometimes bearable, and can be borne for a certain time; but the nuisance in respect to the Liffey in all its aspects has become an outrage on human nature and civil government.

To mitigate the effects of a nuisance is always possible, even where the absolute removal of the causes is most difficult. It is always easier to pollute than to purify; and the longer a river, a human body, or a dwelling is submitted to the action of a foul agent, the danger to human life grows with the difficulty attending its abatement. Notwithstanding the report of the Rivers Pollution Commission, the passing of the Public Health Act of 1872, and the amendment of other Sanitary Acts, the pollution of rivers will go on more or less throughout the three kingdoms. The country is dotted with manufactories, and the noxious and poisonous refuse of many of them has no other outlet at present save into the rivers or their tributaries. The Government has shrunk from meeting the question in a bold and energetic manner, but it is a question which will have to be met boldly by the provision of well-devised sanitary engineering schemes, and the mapping out of the country into drainage areas. If matters were permitted to proceed for another half-century on the same system as they previously proceeded, scarcely a river or stream of any importance would not be fouled, and the water supply of the nation contaminated.

Some people contend that our rivers are the natural outfalls for our sewage and refuse matters; but these sapient people might as well take refuge in the argument that our under-kitchens and cellars and back yards are the proper receptacles for the dirt and sundry slops of their houses. In fact, we still have in these kingdoms some folk who keep their pigs, donkeys, and other cattle in the under-storeys of their habitations, while they use the storey immediately over to eat, drink, and sleep in. We do not envy their primitive tastes, although we are forced to condemn their beastly practices, and use our best endeavours to put a stop to them.

The city that possesses a tidal river ought to consider itself fortunate indeed, for a tidal river is a blessing in many ways, not only on the score of commercial gain, but on sanitary grounds. To convert it into a receptacle and outfall for discharging the filth of a city is to be guilty of a crime of no small magnitude, and one that is certain to bring a deserved punishment. Every city and town should be provided with a great main or outfall sewer, large enough to allow all the sewage that can ever be discharged from the place to pass readily through it. It should have also a proper fall, and be perfectly free. If the outfall is low, as has been the case in some instances at the seaside or at the mouths of tidal rivers, the sewage is blocked up betimes, and the streets and cellars of houses become flooded. If a flap is placed at the outfall, the sewage during the rise of the tide is collected in the outfall and main sewers, and the gases which rise pass of course upwards into the town. The same happens when the sewers empty themselves into rivers below the water-line, and also it is often the case when the outfall is into a tank, out of which the sewage has to be pumped to be got rid of. The pump or pumps may be out of order, or not powerful enough to keep the sewage below the level of the outfall, particularly in wet weather, when there is a greater discharge. The importance, then, of the utmost or freest ventilation in these cases cannot be over-estimated.

If the discharge of the sewage is impeded in the mains, and if they lack proper ventilation, it is most likely there will be an increase in the death-rate of the city from enteric or typhoid fever.

To discharge the sewage of cities or towns into the river or sea is not only mischievous, but it is also the throwing away of a great amount of fertilizing material which is needed on the land. Several methods have been advocated for utilizing the sewage of cities, but it is not necessary to discuss them in detail here. The value of the sewage of London is estimated at a million sterling, and the most of this is thrown away. Where the sewage is turned into the sea, and where the outfall is at a sufficient distance from the town, and the currents do not set towards the latter, the danger may not be much; but if the sewage is discharged close to the town, or over the beach close to houses, the nuisance is sure to become great, and the danger also to health considerable. Where, on the other hand, the sewage is discharged into rivers, even where provision is made to prevent backing up in the mains, two obvious forms of danger arise—first, the formation of sewage-mud in the course of the river, which helps to block its channel, and which when left high and dry, as in the case of the Liffey, give out pestilent emanations; and, secondly, the water of the river is extensively polluted. The tide will carry up the suspended matters of the sewage, and deposit them far above the point in which they are discharged into the estuary. It then becomes clear that, in the case of a tidal river, the outfall, if it be into it at all, should be so far below that no chance should exist of the sewage being brought back into the town again by the rising tide.

The pollution of rivers by their admixture with town sewage demands more careful attention. The smaller the bulk of the river is in comparison with that of the sewage increases, of course, the amount of the danger. Small rivers are often converted into open sewers from the discharge of sewage into them, and consequently the emanations therefrom must be highly dangerous and detrimental to the health of the population. When we consider that most towns at the present hour procure their water supply from the rivers upon which they stand, the importance of not allowing these rivers to become polluted forces itself upon our attention. The question then arises as to the best means of dealing with the refuse matters of the population, and providing a feasible method by which they may be got rid of speedily and effectually without endangering the health of other towns. This is a duty which devolves, as far as advice is concerned, upon the medical officers of health, but it must be seen at once that it is an engineering question, and one that calls for scientific and constructional ability.

It is contended by some authorities that organic matters are speedily oxidised when brought into contact with the oxygen dissolved in river water, and that they are destroyed, or rather converted into innocuous substances, after a flow of a short distance. This may be possible to a small extent, but that all the organic matters in sewage, which may include the poisons of special diseases, are destroyed in a river, no matter what may be its length, is impossible to believe. Dr. Frankland's experiment proves that the removal of organic matters in the way stated is much slower and much less perfect than what is generally supposed. Unless there could be positive and undeniable evidence offered that all organic matter discharged into a river in the way stated was perfectly oxidised after a short flow, no person should feel justified in recommending water which had been so contaminated to be used for domestic purposes. During the epidemics of 1848-9 and 1853-4, as shown in Mr. Simon's report, the cholera was more prevalent in those places which had questionable sources of water supply, and a lower death-rate where an improved water supply existed. The supply of towns should be absolutely

pure, and the utmost precautions taken to keep its water uncontaminated by sewage. We stand convicted before the world of the sheerest folly—aye, and criminality, when we pollute our water and then advocate filtration and other expedients to make it fit for drinking purposes. There is an instance of one town, if not more, which turns its sewage into the river at a certain point, yet derives its water supply from the same river a mile lower down.

In our next article we will have some words to say on the treatment of sewage, and of some processes or systems adopted in the interest of public health and for economic purposes.

## GEOLOGICAL NOTES:\*

BEING AN ADDENDA TO

"THE BUILDING STONES OF IRELAND,"

Published in Nos. 327 to 340 of the IRISH BUILDER.

*Shells and Marl—Sand and Gravel Ridges—the Coal Formation—Mining Districts.*

IN our previous remarks upon the geology of Ireland we stated the theory that it was at one period almost wholly submerged under water. Beds of shells covered by marl, but always found resting upon gravel, numerous occur all over the country, in basins on the slopes of hills, but more generally in valleys. These shells are univalves and bivalves, whose habitat is the deep sea or upon the slopes of a shore; and they have become in their present positions covered over by successive deposits of a calcareous marl, only produced by the subsidence of water holding lime and clay in solution. In many instances they are discovered under a considerable depth of bog. It is in this marl that Griffith describes the skeletons and horns of the Irish elk being found, fine specimens of which are preserved in the Royal Dublin Society's Museum, and in the Royal College of Surgeons. This animal, whose remains have been excavated in abundance in these deposits, appears to have been a contemporary with man, as a human skeleton has been found embedded in the marl closely adjoining one of them. Along the eastern coast of Ireland, as well as in many other portions of the country, fine sand and beds of sea-shells are found at considerable elevations above the sea level—in many instances as high as 600 feet, which is still more conclusive of the theory above given.

The sand and gravel hills of Ireland form a most valuable adjunct to building material,—as Eskers they are known in every county, their substrata being beds of clay, then gravel superimposed by sand, frequently containing marine shells. Sometimes all these deposits appear to have been violently mixed together by some disturbing action. In the county Dublin we have examples in the Green hills near Tallaght, but they occur everywhere all over the country; the great majority, however, are found in the central limestone districts. These sand and gravel ridges confirm our knowledge that Ireland was, at a comparatively recent period in geological history, covered by water; also that by gradual elevation and consequent subsidence currents were established, and, where meeting with obstruction, they deposited these beds of clay, gravel, and sand.

From Dr. Antisell's "Irish Geology," page 73, we extract the following:—"These hills are looked upon as deposits out of diluvial currents which swept across the country in a direction in some degree N.W. and S.E., but altered in many cases by local obstructions. It would appear that the currents were sometimes of great depth and of varying velocity, for many of the beds bear marks of violent agitation and unequal subsidence, mixing all the contents together without regularity; while in others, the evenness and succession of the beds, and the finer lying conformably upon the coarser, indicating that in the last the waters were in a state of

\* Written for the IRISH BUILDER by W. H.



quiescence compared to where the deposits are uneven."

The coal beds and mineral veins of Ireland do not properly belong to the purpose of these chapters, but being commercially of considerable importance, and most interesting in a geological point of view, our subject would be incomplete without some notice of them. Their extent and localities have been described in Mr. Griffith's "Outlines of Geology of Ireland," and their commercial value prominently brought forward in Sir R. Kane's "Industrial Resources," to which authorities, for information on these points, we refer our readers. Coal always occurs in seams of different thicknesses, overlaying each other, seldom horizontal, but generally inclined, as all deposited strata are found—its being of vegetable origin is unquestioned. At the period of its accumulation, that the earth was covered by rank and luxuriant vegetation, and a nearly tropical heat pervaded the entire surface, is believed, because the remains of tropical plants, such as tree-ferns, most predominate, while many of the species discovered are totally unknown at the present day, yet all evidently of tropical growth.

In the shale which separates these beds of coal and in the sandstone accompanying them, impressions of plants are found, horse tails and club mosses of enormous size, yet bearing evidence of being allied to the diminutive specimens existing in our climate, but of such vast proportion in their cellular structure as to prove they could only have existed in very warm latitudes. Numerous large fragments of trees are found upright, with their roots still embedded in their native soil, while many more are horizontal, as if transported from a distance.

The most probable theory accounting for coal beds is:—That they were once immense tracts of the richest vegetation, of which we have now no representatives, except upon a small scale, in the swamps of India, Africa, and South America. We have sometimes heard our own bogs will, after the lapse of ages, be reproduced in the form of coal, but of this we must remark, when that period shall arrive they will be found greatly deficient in the properties of our present product. The luxuriant vegetation of tropical climates can only produce it, such as we are accustomed to.

But to return. These enormous fields of vegetation—the vegetation of age after age, superimposed upon each other—were, by some depressing cause, lowered until they became submerged under water. Possibly by being thus formed into the beds of lakes they accumulated mud and sand, which formed successive strata over them. They were again upraised, similar vegetation appeared, and similar results followed.

We cannot better terminate our remarks upon the formation of coal than by giving an extract from Professor Buckland's graphic account of the coal mines of Bohemia, given in a Bridgewater Treatise:—"The finest example I have ever witnessed is that of the coal mines of Bohemia. The most elaborate imitations of living foliage upon the painted ceilings of Italian palaces bear no comparison with the beautiful profusion of extinct vegetable forms with which the galleries of these instructive coal mines are overhung. The roof is covered as with a canopy of gorgeous tapestry, enriched with festoons of most graceful foliage flung in wild irregular profusion over every portion of its surface. The effect is heightened by the contrast of the coal black colour of these vegetables with the light ground-work of the rock to which they are attached. The spectator feels himself transported, as if by enchantment, into the forests of another world. He beholds trees of forms and characters now unknown upon the surface of the earth presented to his senses almost in the beauty and vigour of their primeval life. Their scaly stems and bending branches, with their delicate apparatus of foliage, are all spread forth before him, little impaired by the lapse of countless

ages, and bearing faithful records of extinct systems of vegetation which began and terminated in times of which these relics are the infallible historians."

Lyell does not give the formation of coal, but in vol. II., "Principles of Geology," page 249, he describes the drift-wood constantly floated down large rivers into lacustrine deposits as now producing wood coal. In Ireland we have examples of this in the lignite found on the banks of Lough Neagh at depths varying from 30 to 70 feet.

In connection with the formation of coal, it is an extraordinary fact that, no matter in what part of the world it is discovered, even at Melville Island, in the regions of eternal frost, the same tropical vegetation pervades it. This would tend to show that the climate of the entire globe was at one period uniform; however, geologists disagree upon this point, and as yet no satisfactory explanation has been given.

The coal formation of Ireland rests upon the upper limestone, with intervening beds of sandstone and slaty rocks, and the districts where it occurs have generally an aspect of considerable elevation. A glance at Sir R. Kane's Geological Map of Ireland will at once show where all the workable seams occur.

Mining operations date back to a remote period. In several of the abandoned workings of former times, antique tools are found, wooden shovels, stone hammers, and chisels of primitive form, evidently of great antiquity.

Dr. Boake tells us in "Natural History of Ireland," written more than 230 years ago, that iron was manufactured then in considerable quantity, so much so as to have been an article of considerable export to London. Iron ore exists largely in numerous places, and is found in almost every coal district. There is also what is called bog iron ore, which, as its name implies, occurs in bogs and morasses. Iron ore is also found in the sandstone and clay slate deposits.

In the clay slate, copper is obtained more or less abundantly, particularly in Wicklow, Waterford, and the southern portions of Cork and Kerry.

Lead ore is extensively developed in the granite districts of Dublin and Wicklow. Near Dublin, at Clontarf, in the calp formation on the seashore, it was for a time successfully raised, until the tide broke in and filled the mine with water. In the clay slate deposits it occurs in Armagh, Down and Louth, and in Clare, Cork, Kenmare, Kilkenny, Waterford, and Wexford, in the granite and mica slate of Connemara and Donegal.

Silver is generally found associated with lead in Ireland, and varies in quantity from 3 to 120 ounces per ton of ore. At Kilbricken mine, in Clare, it occurs in the latter large proportion.

That the ancient Irish must have been possessed of native gold is evidenced by the abundance of their ornaments preserved to our time, and for which no means of importation then existed. About 80 years ago considerable quantities of gold were found in the beds of the streams which descend from the mountain Croghan Kinshela, which rises on the confines of Wicklow and Wexford, where it was for a considerable time collected by the peasantry in larger and smaller nuggets, and even down to the most minute grains. The business of its extraction was at length taken up by the Government, but it was found after a while it would not pay the cost of working. About 40 years ago a London company obtained a lease of the district, but the produce of gold was so trifling the works were finally abandoned. Yet it is curious to remark that before the Government had possession of the mines reliable information informs us that a sum of £10,000\* was realised by the country people who collected it.

Iron pyrites, or sulphur ore, exists in considerable quantity in the clay slate of Wicklow, and is an article of constant export.

\* "Industrial Resources."

## EXHIBITION OF WORKS OF RELIGIOUS ART AT LILLE.

THE exhibition of objects of religious art inaugurated lately at Lille by the Archaeological Society of that place, is an extensive and somewhat remarkable one. The exhibits occupy 26 rooms of the Hôtel de la Préfecture du Nord. The collection was organised by a committee presided over by M. Chanoine Van Drival, who prepared an excellent catalogue. The specimens are divided into ten sections, comprising missals, metal work, enamels, sculptures, tapestries, sacerdotal vestments, paintings, and various other objects connected with religious worship. Altogether there are upwards of 3,000 specimens. Among the more remarkable there is a reliquary in which is preserved the portrait of the Madonna, said to be painted by St. Luke. This represents the spire of the Cathedral of Cambrai, and is a fine specimen of the goldsmith's art. The collection of missals and manuscripts contains magnificent specimens of the art of miniature painting from the eleventh to the sixteenth centuries, books of hours beautifully painted, and with writing of the greatest minuteness. Several of the manuscripts are of historic interest. The Bible of Tournay of the tenth century, used as a text-book at the Council of Trent; the Breviary of the Princesses, used by the three nuns of royal lineage in the convent of Clarisses at Amiens; the Book of the Gospels upon which the king, the counts of Artois, and other officials of Arras were wont to take their oaths of office—the king outside the city gates, the others within upon the relics of St. Vaast; an Aristotle translated for Charles V. of France; and the *Traité des Dernières Choses* translated from the Latin into French by order of Philip the Good. There are numerous enamels, the *champléné* profusely applied to the decoration of shrines, crosses, pyxes, chalices, and other objects of ecclesiastical art, and the painted enamels of Limoges are also extensive, the subjects being derived from Scripture. Examples of the first order are among the goldsmiths' and metal work. Among these are the celebrated reliquary of Clairmarais, a double-branched cross richly adorned with niellos, filagree work, chasings, and precious stones, a wonderful work of the twelfth century, made to contain what is stated to be a fragment of the true cross brought by a Count of Flanders from the Holy Land. The Abbey of the Paraclete contributes three precious pieces: a cross, also enriched with chasings, pearls, enamels, and precious stones; a crown of gold, with *fleur de lis* and translucent enamels and precious stones; and a small vase of similar decoration, delicately finished. The Abbey of St. Bertin contributes the well-known foot of the cross, a grand specimen of *champléné* enamel; a remarkable reliquary monstrance—two standing angels supporting a cylinder containing the veil of St. Aldegonda, and above a saint in a kneeling attitude. Here is also the Censer of Lille, of copper gilt; croziers, crucifixes, statuettes, among which is a remarkable one of St. Nicholas, all of which are of great beauty. The ecclesiastical vestments comprise some which are most gorgeous, but the most interesting perhaps is the chasuble of Thomas à Becket (St. Thomas of Canterbury), from the Cathedral at Tournay, in which city he sojourned when he fled from the anger of the king. It is a sort of crimson silk of Sicilian make, and of large size. The tapestries and embroideries occupy a separate section, and contain among them some altar frontals or hangings of very curious workmanship, executed in high relief. The ivory carvings consist of crucifixes, statuettes, eliptychs, &c., some representing scriptural scenes with a number of figures. The collection of medals is large, comprising seals, pilgrims' tokens, and many curious paintings of the early Flemish schools, among which are those of the Confrerie at Notre Dame du Puy of Amiens, a religious, literary, and artistic brotherhood of the fourteenth century, the



president of which had to offer a painting, statue, or other work of art the Christmas following his election. This condition would perhaps be found serviceable if enforced in respect to some of our modern institute presidents. Of this last collection there are nine examples marking the progress of the art. They belong to the Cathedral of Amiens. There are also five paintings in tempera on linen, subjects by Raphael for the tapestries of the Vatican: "The Conversion of Sergius," "The Miraculous Draught of Fishes," "Giving the Keys to St. Peter," "St. Paul Preaching at Athens," and "The Conversion of St. Paul."

We may add that Lille, which is called the Special City of Our Lady, gave last month a series of *fêtes* in honour of her patron saint, Notre Dame de la Treille. The Pope sent her a crown of gold, and the wife of the President of the French Republic an embroidered crimson mantle. Although many may be disposed to doubt the history of some of the objects of art exhibited at Lille, yet apart from the religious side of the question, the specimens of art on view are entitled to admiration for the grandeur and skill displayed in their execution, and also on the score of historical associations. This interesting exhibition will probably close in a few days.

#### ANCIENT TOMB, CLARE-GALWAY.

THE accompanying illustration represents an Ancient Tomb in the chancel of the ruined Abbey of Clare-Galway, in the county of Galway. The tomb is of more recent construction than the abbey itself, which has been allowed to fall into such a state of ruin that portions of its outline can barely be distinguished.

The sketch we give was measured and drawn by Mr. W. J. Fennell. It has been reproduced by the photo-lithographic process.

#### UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

##### NOVO NOSTER-STREET.

PRESSING personal engagements on our part and slight indisposition on that of our cicerone, prevented us for some weeks past continuing our visits to places mapped down in our note book.

Last week, however, found us out again through the highways and byeways of the Unknown City. A reminiscence of the past having flashed across our minds, we directed our footsteps northward, towards Novo Noster-street, a spot familiar to us from school-boy idlings. Changes had indeed taken place in the old haunts we traversed upwards of a generation ago, but the improvements on the whole were small. Old residents, professional and non-professional, had disappeared. Some had left the country; some were in their silent graves; and others had retired to suburban quarters to spend the remaining years of once chequered lives. Judges, barristers, attorneys, poets, philosophers, civic celebrities, and sundry others of the old school were all gone, and the houses they occupied, before whose doors we often had witnessed grand equipages and powdered wig coachmen and footmen, were inhabited by a pinchbeck gentry, who would fain ape the manners of their predecessors, and exact the homage that few save their own dependants would pay them. Many of the houses in the upper part of Novo Noster-street are well built, and granite-faced to the second storey, the joinery and fittings within are excellent, and the stabling and out-houses in the rear were substantial and extensive. The coach-houses and stabling are not now, however, save in few instances, used by the present tenants, for "Larry Doolin" supplies their usual wants, and the job-master occasionally. Larry Doolin himself in some instances rents the coach-

houses in the rear of the once aristocratic residences of Novo Noster-street. This street has indeed seen many changes in the course of fifty years, and before that time. As our memory does not extend to the glorious early days when nought but wealth and fashion were witnessed here, and public recognition was given by the people to those who earned it, we will let our faithful guide, the Oldest Inhabitant, recount his recollections:—

"Well I remember, sir, the wealthy and titled personages who lived in the upper portion of this street. This street, as you are probably aware, is not a very old one. My grandfather remembers the first houses of note built here. When that church above there in Tyrone-street was commenced in 1758, the ground here was almost an open space, but gradually afterwards the street extended, and fashionable families began to settle down here. A good vista was afforded from here across towards the Strand, and the healthy breezes from Fingal and seaward from Clontarf were to be had. The lower end of this street in after years, from being kept in a bad condition, injured the upper portion; but, notwithstanding the squatter population and 'roughs' that settled down about the locality called 'The Diamond,' the street proper continued to preserve its respectability until a late period. Of course, I do not mean to say that the street has even now become a low one, but it has gone down, and is going down for some years past.

"You will, probably, like to hear who were some of the residents here at the close of the last and at the commencement of the present century. I remember a few names of note, some of whom were strange characters. The history of the lives and transactions of some of the individuals would take a volume to describe. The members of the Irish Parliament who lived in the upper portion of the street were: the Hon. A. Annesley, M.P. for the Borough of St. Canice; Hon. Arthur Hill, commonly called Viscount Kilwarlin, M.P. for the County Down; Robert Ross, M.P. for Borough of Newry; G. W. Molyneux, M.P. for the Borough of Granard. The legal notoriety at the same time were: James O'Hara, Commissioner of Bankrupts, at 25; Con. Heatly, barrister. The Right Hon. R. Annesley lived for several years in this street; he was a legal and public celebrity of note, and filled the office of Commissioner of the Revenue. G. Ewing, H. G. Molony, at 13. William Preston, Commissioner of Appeals, and a number of noted attorneys lived in this street also.

"There were but few traders or merchants lived in this street until this century had advanced for some years. Charles Thorpe, a member of the old Bricklayers' Guild, and afterwards an alderman, lived for awhile in this street. Mr. Thorpe was known as one of the old school of stucco-plasterers, and lived for some years at 45 North Great George's-street, and later in the present century he was a builder at 15 Blessington-street. The Rev. Thomas Paul, LL.D., the rector of St. Thomas' Church, and his curate Benedict Arthur, lived in this street in 1786, the former at 12 and the later at 9. At the commencement of this century Murphy and Kelly, brewers, lived at 4, and John Walsh, merchant, at 3 in the lower portion of this street. William Moore, timber merchant and builder, lived at 2 Novo Noster-place. Later in this century, between 1812 and 1820, the Hon. W. A. Yelverton, a lawyer of note, lived at 36; Captain William Nixon, at 12; Colonel Magrath, at 4 in the lower street; and Lady Hamilton, at 1 here in the upper part. George Darling, secretary and accountant to the commissioners for old Dunleary Harbour, lived at 19. Sam and Jos Holmes, merchants and linen factors, lived at 26; Francis Sutton, merchant, at 6 in the lower street; and Richard White, who traded under the joint occupations of builder and grocer, lived about this time at 7 Novo Noster-place.

"The barristers of note who lived here, in addition to Mr. Yelverton, were: T. S.

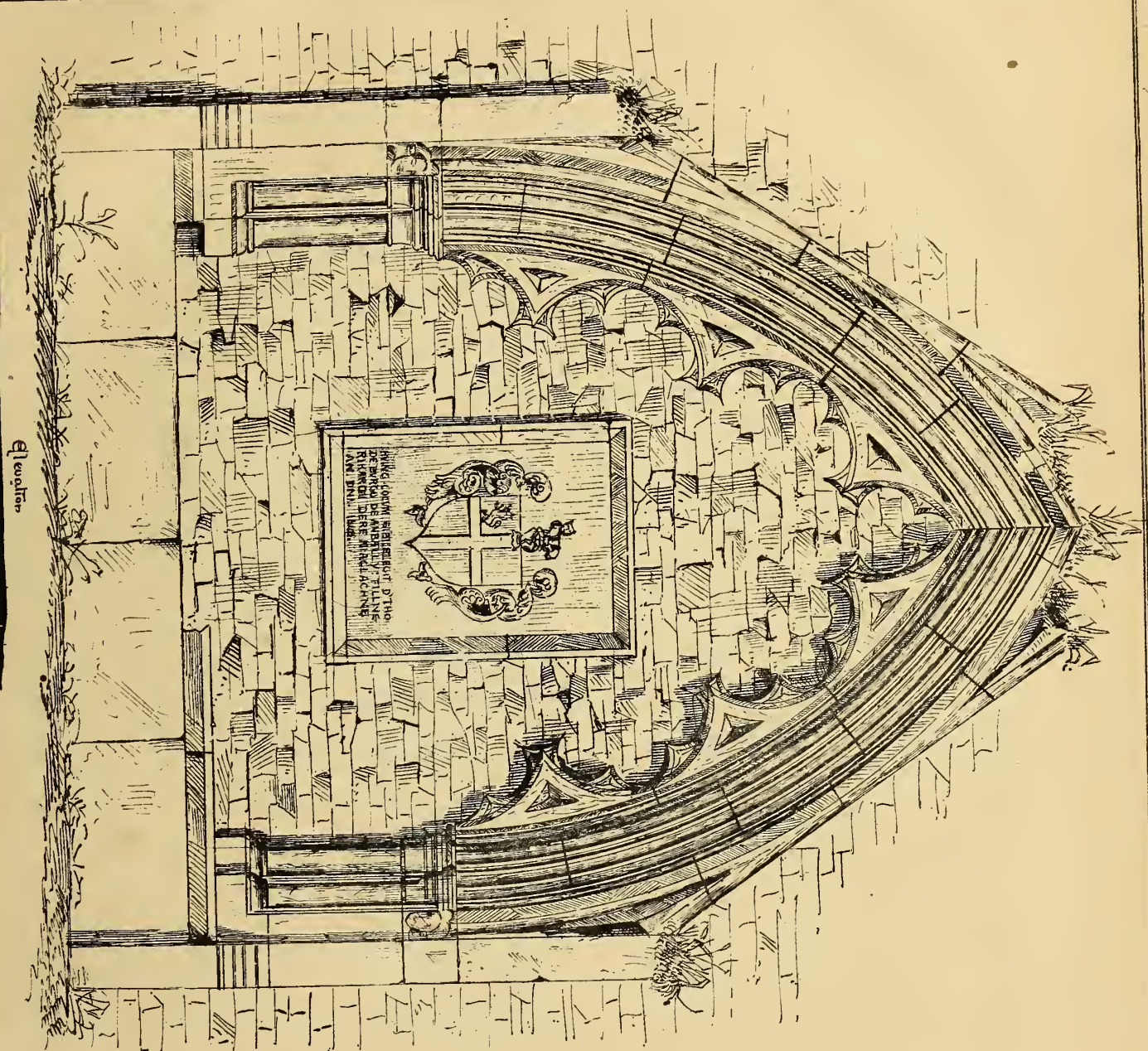
White, at 34; Daniel Webb Webber, K.C., M.P. for Borough of Armagh, Commissioner of Enquiry into fees of the Court of Justice. Of this worthy I may have something to tell you in detail hereafter. Thomas Burton Vandeleur, King's Counsel and Counsel to the G. P. O., lived at 35; Robert Digby, at 8 in the lower street; A. Boyd, K.C., at 29; and Edward Anderson, at 30. Those legal gentlemen I think were all living in this street about the year 1818, and some of these I first mentioned continued to reside here from the first year of the century down to the year mentioned. About this period, too, a number of attorneys continued to reside up and down this street, and many of these had large practice.

"There were, sir, a few physicians of note lived in this street during the present century, and at the period of which I was speaking, Dr. Sam Litton, Vice-President and Censor of the College of Physicians, M.R.I.A., and Librarian to the Royal Dublin Society, lived at 10 in the lower street; William Hart, M.D., Physician to the Prisons and the Blue Coat Hospital, lived at 32 in the upper; and J. Ball, of the Royal College of Surgeons, London, lived at 24 in the lower street. Henry Browne, merchant, at this time lived at 5 in the lower street—he was a member of the old Trinity Guild, and sat in the Common Council of the old Corporation. Michael Hoey, a clerk in the Revenue side of the Court of Exchequer, had an office at 33 in this street: how long he held office I am not aware, or whether he was of the Dublin branch of the family—who were booksellers, newspaper owners, &c.—I cannot say.

"Some account of the noted Parsons Hoey, of Hoey's-court, the birth-place of Dean Swift, will be found, you are no doubt aware, in Mr. Gilbert's 'History of Dublin.' A daughter of Hoey's, the journalistic celebrity of the last century in Parliament-street and elsewhere, married the Earl of Shrewsbury in the last decade of the last century. She was on her way to Bordeaux to take the veil or enter some convent when she met his lordship, who succeeded in wooing her and making her his bride. His lordship, I believe, died in 1827, but left no issue by his Catholic wife. Peter Hoey, a noted bookseller lived for some years in the last century at 1 Skinner's-row, and subsequently for several years in the present century on Upper Ormond-quay, at the corner house at the right hand side of Charles-street. Margaret Hoey, his wife, carried on business after his death, and subsequently, I think, persons of the name of Dalton continued the business of law stationer in the old shop. Hoey, bookseller, lived at 19 Parliament-street, and his wife Jane, after his death, carried on the business for some years. A Major Hoey, I remember, lived for some years in Leeson-street, who possessed property on the north side of the city, but whether a member of the above-named families I am unable to say.

"While speaking of the Hoey's, I may add that journalism is still represented by the name on the Dublin and London Press. John Cashel Hoey, a barrister now residing in the latter city, was for some time editor of the *Nation* newspaper after Charles Gavan Duffy's secession. He has been for some years a writer on the *Dublin Review* and other publications. His wife is the author of some popular novels, and she is at present contributing some stories to the monthly magazines. Cashel Hoey is a native of the county Louth, I believe, and descended from the farming class. There is also a Mr. C. C. Hoey, a native of Dublin, but for some years back residing in London, a writer on several Irish, English, and Scotch papers and publications. He was bred to the building profession, and spent some of his earlier years in the pursuit. I believe his *forte* of late years has been architectural and sanitary questions. He also is descended from the farming class, his grandfather being a County Dublin farmer. Both J. C. Hoey and C. C. Hoey have perpetrated a considerable amount of poetry, and the

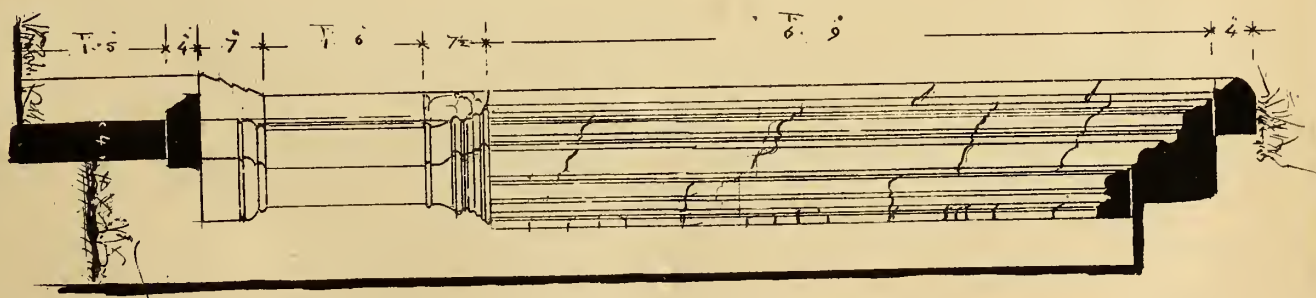




Elevated

9. 0" to opposite column.

Plan.



Section

Filled in with  
hyman bones.

Tomb in the Quire Abbey of  
Clare Galway.

measured and drawn by W. J. Ferrell.  
April 26<sup>th</sup> 1874.



THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



latter is the author of numerous sketches, biographical and descriptive, of names and places throughout the three kingdoms.

"In my young days the greater part of the lower portion of this street, extending down to Aldborough House, was waste ground—indeed, it was not much better than a swamp. The history of Aldborough House, if told fully, is a curious one. The mansion was built in 1796. Edward Stafford, the Earl, had a town house of the same name in London, and country residences at Belan, Kildare, and Glenham, Suffolk. The building of the large mansion in the low grounds on the North Strand has always been considered a mad action on the part of his lordship, but perhaps he had reasons which remain unexplained to the public. Lord Aldborough expended £40,000 on its erection, and good workmanship was evidenced on its interior. The people of the locality were wont to say, when it remained empty for years after its completion, 'Sure her ladyship refused to live in it after all his lordship spent upon it, and there it remains a giseho from that day to this.' For many years indeed it did remain a desolate mansion, and was beginning to earn the repute of being haunted, until 1813, when Professor Von Feinagle, a native of Germany, raised by subscriptions a pretty large amount of money, took the old mansion, and £15,000 which was raised in shares was expended in adapting it for an educational institution based upon a system invented by Von Feinagle himself. The Professor was the author of a work on mnemonics, entitled 'The New Art of Memory,' and the principles he illustrated in his work he endeavoured to develop in his schools. Of this institution, the professor, the old house, and its subsequent history, and of some noted scenes and characters connected with Novo Noster-street within the last fifty years, I will recount to you as briefly as I can on our next visit to this locality."

Promising to meet our trusty old friend on that day week, we left old Aldborough House to the shades of evening, and walked townward towards Tyrone-street, where we parted with the "Oldest Inhabitant."

### THE BRITISH ASSOCIATION AT BELFAST.

BELFAST entertains the British Association this year, and Bristol next. The meeting commences on the 19th of the present month, under the presidency of Professor Tyndall, from whom may be expected an animated philosophical address. The railway companies usually allow the members of the Association to travel over their lines to the place of meeting at reduced fares on the production of their members' tickets. Belfast must prove an attractive locality. Its university is famous for its professors, one of whom, Professor Harkness, is well known as a leading geologist. The Naturalists' Field Club of Belfast is the most active in Ireland, publishing a yearly report, with papers read and excursions made, of more than usual interest. I hardly need say that the neighbourhood abounds in general as well as special interest, for at a short distance are the Giants' Causeway, the wild Antrim coast, and antiquarian and historical incidents superabundant. The coast is zoologically and botanically rich, whilst the chalk in such places as Woodburn Glen yields abundance of characteristic fossils. The Cave Hill quarries, Deer Park, Mountstewart, Grey Abbey, &c., are well-known hotanical collecting grounds. The basalt, which has contracted in cooling into the polygonal pillars that have given its popular name to the Giants' Causeway, is of Miocene age, and forms part of the same old lava sheet that has produced such scenic effects about Edinburgh, which crops up in Fingal's Cave, and forms a submarine plateau that comes up in the Faroe Islands, and is possibly continued into Iceland. It is the last evidence we have of active volcanic disturbances in Great Britain, occurring, however,

during a period we may consider as geologically recent. The basaltic rocks in the north-east of Ireland undoubtedly present the grandest display of volcanic strata in Great Britain. They cover nearly the whole of Antrim, which county thus lies buried beneath an old lava sheet. Its average thickness is over 700 feet, and the chalk on which it rests is frequently to be seen altered from its usual earthy appearance into a crystalline or granular structure, owing to the intense heat and pressure it has undergone during the ancient volcanic overflow and disturbance. The basalt of the Giants' Causeway contains seams of Lignite, or brown coal, the representative of the vegetation which flourished here during the Miocene period. In other places this old lava stratum contains iron ore, in which (as at Templepatrick) may be found the fossil remains of plants and insects. These well-known geological areas will be visited during the meeting, and tolerably full details will be given of what is to be looked for in the shape of minerals, fossils, plants, &c., that being the custom adopted by the Local Committees for supplying their visitors with as full a description of the scientific features of the locality as possible. The pilgrims leave their mark upon the localities which they visit. A spurt is given to scientific investigation and inquiry, which is usually visible during the succeeding winter months. Those who are interested in science will then utilise the encouragement and popularity they have enjoyed to organise scientific lectures. Young students are made by these meetings and older students take fresh courage. So the Association on its travels is true to its purpose as a society founded for the Advancement of Science.—*Gentleman's Magazine.*

### CIVIC LYRICS.—No. LXVI.

#### WISE AND PRUDENT MEN.

In olden days, in William-street,  
A Corporation rich  
Its great engagements all could meet,  
Without the smallest hitch.  
But, when "Reformed," Solon said,  
With journalistic pen,  
Our Corporation goes ahead  
With wise and prudent men !  
It went ahead—yes, like a crab,  
Head foremost off behind;  
And Solon, gifted with the gab,  
Like others, raised the wind.  
Hurrah ! the City's swimming now  
By bills cross'd with the pen;  
She keeps her head up, anyhow,  
With wise and prudent men !

CIVIS.

### ARSENIC IN WALL-PAPERS.

A CASE of partial poisoning, through inhaling the particles brushed off from a bright green wall-paper, having occurred at Northampton, we (*Furniture Gazette*) are induced to publish the following remarks upon a case mentioned in a lecture held by Dr. George Johnson before the National Health Society. It is that of a physician, middle-aged, active, healthy, and perfectly well, until in an evil hour, some months ago, he hung a garden room with a bright, new, green paper, the apartment being one in which he was accustomed to sit after dinner. He began almost immediately to be strangely out of sorts—the symptoms of his indisposition being like those of "hay-fever." A violent influenza-like affection oppressed him constantly; he became unable to breathe by the nostrils; he had violent sneezing fits, and oft-times a sense of impending suffocation. Night intensified his symptoms; he lost the sense of taste along with smell, and yet, except for the inconvenience of the chronic catarrh, he did not "feel" very ill. But by-and-bye asthma supervened, and the victim was driven to try change of air. This relieved almost directly his difficulty of breathing, but the asthmatic affection recurred in spasms at intervals, and the horrors of

chronic dyspepsia were added to his other ills. The patient took medicines and lived in the fresh air away from his home, thereby getting much better; but when he returned to practice and the little garden-room, a violent fit of coughing came on the first evening which he spent in that fatal chamber, and the thought suddenly occurred to him that his illness had commenced with the redecoration of the apartment. Next morning the paper was analyzed, and found to contain a large quantity of arsenical powder. Its removal put an end to the symptoms caused by occupation—although the unfortunate inmate still remains a victim to asthma, and has been incapacitated for practice. He himself puts clearly the arguments which prove that here was an indubitable instance of poisoning through the paperhanger. He says: "1. The commencement of my illness was exactly coincident with the repapering the room which I had previously occupied, precisely in the same manner, for upwards of three years, without inconvenience. 2. The active symptoms—suffocation, nasal irritation, profuse discharge of mucus—were always intensified at night, just as I had quitted the room; and remitted in the morning. 3. Also, on the only two occasions on which I left home for one night only, and afterwards when I went away altogether, I was free from all nasal disturbance." In a word, here was a skilful doctor, habituated to the causes and phenomena of disease, and, nevertheless, during many months he was being killed by the walls of his own smoking-room without so much as suspecting the assassin; all this being after all the dismal revelations of 1857 and Dr. Hinds. What has happened within the year to a professional man may be happening to a great many persons who never heard the warnings of 1857, and especially so because the idea prevails that green is the only colour to guard against. This, however, is not the case. The use of arsenic and other deadly poisons enters into many tints, employed both for wall-paper and articles of dress; and there is too much reason to believe that sickness and death are caused to this day by many of these deleterious manufactures. In the admirable volume just published by Professor Crookes upon "Dyeing and Calico-printing" there are revelations indirectly made which show that the use of arsenic and other poisonous bases for pigments is more general than ever. Thus to make the pretty rose-red called "safranine," in every vat the dyer boils four pounds of arsenious acid. Almost all the aniline colours—and they are now particular favourites—are printed upon cottons with arsenite of soda as the mordant. The vegetable browns and yellows are fixed on woollens by arsenious acid; the innocent looking French grey—*gris Castelhaiz*—takes five pounds of solid arsenic to the vat or lot. And all this applies just as much to wall-papers, so that it is not "Scheele's green" alone that should be suspected. Roseate tints, greys, browns, and yellows may be killing people quite as possibly as the lively greens, and this in spite of the fact that arsenic does not readily volatilize. If it comes off the wall or the dress in dust, and if that dust mingles with the air inspired, all these dreadful symptoms are explained, and anybody suffering mysteriously in the way described ought to look to the walls of the room or to the muslins and tarlatanes of the wardrobe.

### THE MULLINS CONVALESCENT HOSPITAL.

By the will of the late Michael Bernard Mullins of this city a Convalescent Hospital, bearing the testator's name, is to be established near the City of Dublin. The will directs that the institution shall be subject in all respects to the approval, control, and direction of the Commissioners of Charitable Donations and Bequests. The endowment will, it is expected, amount to £30,000.



## THE ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

THE quarterly meeting of above association was held at Butler House, Kilkenny, on 1st ult., the Rev. P. Neary in the chair.

The following were elected as members:—Patrick Martin, Esq., M.P.; Very Rev. Thomas Banbury, Ven. Charles Hare, Rev. James Mangan, D.D.; Rev. Hugh Brennan, Captain Massy Dawson, Luke M'Redmond, Esq.; Richard Egan, Esq.; William Murphy, Esq., architect; Mr. D. Welch.

### PRESENTATIONS.

Mr. Thomas Stanley, Tullamore, sent for presentation to the Museum a very fine bronze hair-pin, a foot long, tapering to a sharp point at the end, and headed with a disc, about an inch and a-half in diameter, rising to an obtuse point in the centre. It had been found near Tullamore by some turf-cutters in the employment of Mr. William G. Warren, under a considerable depth of bog, and within four inches of the gravel.

Rev. James Graves, whilst they were on the subject of pins, begged to exhibit two pins sent by Mr. W. F. Wakeman. One was a ring brooch of *findruine*, or white bronze, with a long pin, and a ring very beautifully ornamented with some of the old interlacing patterns found so much on ancient Irish sculpture. The other was more curious, as it had a silver pin attached, evidently at a very remote time, to an old silver coin, which did duty for the head, the whole resembling exactly the modern brooches which they sometimes saw constructed from an American gold dollar with a pin attached. This served to show that such an arrangement was by no means a late idea. Mr. Graves said he had submitted this latter brooch to Mr. W. S. W. Vaux, Secretary to the Numismatic Society of London, to have his opinion as to what the coin forming its head was. That gentleman replied as follows:—

"Your silver pin is curious, but I am not quite sure to what period the coin which forms its head is to be referred. At first sight, it looks Mærovingian, but I believe those coins are more usually in gold. I don't remember to have seen any one with the exact head here represented. On the other hand, the reverse, so far as I can make it out, would rather lead me to think that it is one of the class called *Scutæ*, and of Danish, or, at all events, northern origin. These coins are believed to have circulated in England, and very likely in Ireland too, in the sixth and seventh centuries. I am sorry to be obliged to send you such a vague account, but I have retired these three years from the British Museum, and have no books or collections at hand to refer to."

Mr. John Hogan begged leave to present the first series of original documents connected with the Diocese of Ossory, which the Right Rev. Dr. Moran had caused to be transcribed, and was getting printed. The present manuscripts, which the Right Rev. Dr. Moran had printed under the general title of *Spicilegium Ossoriense*, were from amongst the papers of Bishop de Burgo, but marked by him as copied "Ex Manuscripto Illustrissimi et Reverendissimi D. Jacobi Phelan, Episcopi Ossoriensis." Dr. Phelan, it would be remembered, was of the reign of James II., but he appeared to have made his extracts from much earlier records. There was a visitation of the diocese; a list of the parishes and patron saints of Bishop Phelan's time; a taxation of the reign of Henry VII., and various letters of the time of the Confederation of Kilkenny and subsequently—altogether a very interesting contribution to local history.

The Rev. Mr. Graves said he had been informed that a number of Bishop de Burgo's papers were preserved at the Dominican Convent, Cork, in the custody of the Historiographer of the order.

Mr. Prim, on the part of the Rev. Waller de Montmorency, presented a parchment document which the latter gentleman had found amongst his family papers. It was a deed by which the Corporation of Kilkenny and various of the inhabitants, whose signatures were subscribed, with the amount of their donations attached, bound themselves in the year 1731, to provide "four perpetual plates, to be run for twice every year in the Park of Dunmore, or within the liberties of the city of Kilkenny—viz., two plates of £20 and two plates of £10." The Corporation gave £400 to the fund, and affixed the Mayor's seal to the document.

### EFFIGIAL MONUMENTS AT HOSPITAL.

Mr. Lenihan, Limerick, sent three drawings of ancient effigial tombs at Hospital, the ancient Abbey Owney, in that county, formerly a preceptory of Knights Templars, and afterwards a commandery of Knights of St. John of Jerusalem, or

"Knights Hospitalers"—from whence the present name of Hospital.

Amongst the other papers and communications brought before the meeting were:—"Remarks by Mr. Brash on the Killeen-Cormac Oghams, described by the Rev. J. F. Shearman;" "Description of the Ogham Treatise in the Book of Ballymote," by Mr. G. Atkin; "Description of a Danish weapon of war lately found at Scattery Island," by Mr. Lenihan; "Historical Notices of the Kenmare Family," also by Mr. Lenihan; and "Iniscathy since the 12th century" (second part), by the Rev. S. Malone, M.R.I.A., &c.

The association adjourned until the first Wednesday in October.

## THE NATIONAL MANUSCRIPTS OF IRELAND.

(Continued from page 203.)

THE fragment, consisting of sixty-seven leaves, styled *LEABHAR NA H-UIDHRI*, or the "Book of the Dun Cow," is generally believed to be the oldest manuscript, not ecclesiastical, now extant entirely in the Irish language. It was compiled and transcribed by Moelmuiri Mac Ceileachair, who was killed by robbers in a church at Clonmacnois in 1107.

On two pages of the manuscript are small memoranda which purport to have been made, as trials of the pen, by the compiler, Moelmuiri, son of the son of Conn "of the poor." Conn, the grandfather of Moelmuiri, is stated to have been a member of a literary and benevolent family, and to have been named in Irish *na m-bocht* or "of the poor," from the number of the necessitous whom he constantly relieved at Clonmacnois. He is said to have been in high repute in Scotland, and was designated "Head of the Culdees, anchorite, and the glory and dignity of Clonmacnois," where he died at an advanced age in A.D. 1059. His son Moelmuiri, who died in 1180, is supposed to have been the Marianus Gormanus, who compiled an Irish Martyrology.

Of the history of the *LEABHAR NA H-UIDHRI* we have few particulars beyond those supplied by the entries on page 37. In the first of these, Sigraird O'Cuirrindin states that, by direction of the chieftain Domnall O'Connor, he renews the name of Moelmuiri, son of Ceileachair, son of Conn "of the poor," who wrote and collected this "beautiful book" from various sources, and for him he begs a prayer. The second entry requests a prayer for Aed O'Donel, who by force recovered this book and the "short book" from the people of Connaught, to whom they had some time previously been given in ransom for the son of O'Donel's family historian.

Sigraird O'Cuirrindin, poet and musician, who made the first of these entries, died on a pilgrimage in 1347, and the entry is assigned to A.D. 1345. The second entry is corroborated by the Four Masters, who record that O'Donel recovered the *LEABHAR NA H-UIDHRI* and the *Leabhar gearr*, or "short book," in 1470, when, after a long siege, he captured the castle of Sligo from O'Connor.

The contents of *LEABHAR NA H-UIDHRI* now consist mainly of fragmentary pieces in prose and verse on the Ulster champion Cuchulainn and personages of the heroic and early Christian periods in Ireland; notices of ancient places of sepulture, elegy by Dallan Forgaill on St. Columba, Adamnan's vision, version of history by Nennius, and discourses on Resurrection and Judgment. Some of the matter purports to have been extracted from manuscripts now missing, such as "the Yellow Book," "the Yellow Book of Slane," "the Short Book," "the Books of Eachaidh O'Flannagan," and "the Book of Drom Sneachta."

*LEABHAR NA H-UIDHRI* is now perhaps the sole survivor of the books which were in use at Clonmacnois in ancient times. It would appear to have received its designation from a now lost volume of the same name said to have been compiled and transcribed by St. Ciaran, who, about A.D. 540, founded the first church at Clonmacnois, on the east bank of the Shannon, about seven miles below Athlone. At Clonmacnois, from the sixth to the twelfth century, were many ecclesiastical and scholastic establishments, the extent of which is evidenced by the still existing remains. Of the erudition and high character of some of the former teachers there we have external attestation in a letter which Alcuin, one of the best scholars of his age, wrote, when, about A.D. 790, he transmitted contributions from Charlemagne to Alcuin in Ireland. Alcuin addressed Colcu, who was Lector at Clonmacnois, as his "most holy father," and with him, and his associates, it would appear he maintained a continuous correspondence.

Cuchulainn was a prince of Ulster, represented

to have flourished in the first century of the Christian era, and styled in ancient writings "fortissimus heros Scotorum." The heroic exploits of Cuchulainn formed of old the subject of numerous compositions in the Irish language. He is introduced under the name of "Cuthbullin" in the "Ossian" of Macpherson. Murthimne, where the scene of the present story is laid, was an ancient territory situated in the district now known as the county of Louth. *LEABHAR NA H-UIDHRI*, now in the Library of the Royal Irish Academy, is of high value in a philological point of view. In orthography, accentuation, and accuracy it is superior to most of the Irish manuscripts of later age. It is written mainly in double columns, without any color ornamentation except some inelaborate touches in yellow, red, and dark purple, mostly near or within the frames of the initial or other large ornamental characters. *LEABHAR NA H-UIDHRI* remained unpublished until 1870, when, under my supervision, the entire of it was reproduced in fac-simile for the Royal Irish Academy by Mr. Joseph O'Longan, of the Academy's department of MSS. This edition was collated by B. O'Looney, M.R.I.A., to whom I am indebted for valuable assistance in connection with the matter in the Irish language in the present publication.

**MANUSCRIPT BY MÆLBRIGHTE HUAMÆLU-ANAIGH.** This volume, completed at Armagh, A.D. 1138, contains the Four Gospels with the usual prefaces. The Gospel of St. Matthew, so far as chap. 27, and portions of those of Saints Mark and Luke are, in their interlinear and marginal spaces, filled with minutely written glosses and commentary from Origen, Cyprian, Eusebius, Isidore, Leo, Priscian, Gregory, Bede, and Manchan or Manchanus.

In addition to the Irish poem on the personal characteristics and modes of death of the Apostles the volume includes in that language eleven quatrains on the wise men of the East, and various short verses on religious or biblical subjects.

The transcriber mentions at fol. 13 that the writing of his preceptor, MacIntagairt of Tuignetha, is at the head of this page, and he prays "that God may be gentle to the soul of Mælisu." He probably here refers to Mælisu Maelcoluim, "chief keeper of the calendar of Armagh, its chief antiquary and librarian," whom the annalists record to have died in 1136. Of MacIntagairt of Tuignetha, now Tynan, near Armagh, no particulars are known. So late, however, as the reign of James I. the clan MacIntagairt occupied land in the vicinity of Armagh.

Hugh Mæluanaigh has entered his name on three pages of his book. In one of these he states that he wrote it in the twenty-eighth year of his age. On page 60 he makes an observation on the slaying of Cormac Mac Carthy by Torlogh O'Brien. In a colophon on the last page, O'Mæluanaigh states that he finished the writing of the volume at Armagh, and enumerates the then existing kings of Ireland. He also mentions the year at which Cormac, King-bishop of Munster, was slain, and adds that Gilla Mac Liag was then the "successor of Patrick" in the see of Armagh. These entries demonstrate that the volume was finished at Armagh in A.D. 1138.

The stone-roofed church on the Rock of Cashel, known as "Cormac's Chapel," was so called from having been erected, in 1134, for the Cormac Mac Carthy whose death is here entered.

Gilla Mac Liag was the bishop who, in 1137, succeeded St. Malachy at Armagh; and St. Bernard described him as "Gelasium virum bonum et dignum tali honore."

The concordance of the contemporary chronological entries in O'Mæluanaigh's manuscript with the native chronicles in various distant collections, with which the writer could not have been conversant, has been adduced as evidence of the general historic fidelity of the Irish annals.

In the early part of the eighteenth century this manuscript was in the "Bibliothèque du Roy," Paris, and attracted the attention of Père Richard Simon, who in his *Bibliothèque Critique*, 1708, described it as a handsome volume written eight centuries previously in ancient Saxon characters by "Dom Ælbrigte, a Benedictine monk. From the 'Bibliothèque du Roy' the book was stolen by Jean Aymon, who carried it with other manuscripts which he had purloined to Holland. There it was seen and examined in 1709 by the noted John Toland, a native of Ulster, who recognised its Irish origin but erroneously conceived it to have been written in the ninth century. From Aymon the book was purchased by Humphry Wanley, about 1718, for Robert Harley, Earl of Oxford, and with the Harleian collection it came to the British Museum, where it is numbered 1802. Wanley regarded the manuscript as a standard for the Irish hand of the early part of the twelfth century, and spoke of it as "one of the most authentic copies of



the Latin Gospels which they have set forth from that Island."

There are perhaps no finer specimens of minute Irish writing extant than those in the margins and interlineations in this manuscript. At the foot of a small slip introduced between folia 49 and 51 the transcriber, in exceedingly small characters in the Irish language, observes:—"If I wished, I could write the whole treatise like this." On the last page he closes the volume with two lines in Irish in which he asks a blessing on every one who will pardon the faults of this book, and adds, "let him say a Pater for the soul of the scribe; for it [the book] requires much indulgence both in text and commentary."

The modern writing on fol. 60 recto is probably of the time of the Rev. Dr. John O'Brien, Roman Catholic bishop of Cloyne, who in his Irish Dictionary, published at Paris in 1768, referred as follows to this page:—

"In an old valuable manuscript of the four Gospels in Latin, written in Irish characters, first belonging to the King's Library at Paris (where Père Simon ignorantly judged it written in the Saxon character), but now to be seen in the British Museum at London, the following marginal remark in old Irish is found at the end of the Gospel of St. Matthew, p. 60, is mór in gnim Cormac Mac Carthaigh do mharbhadh O Thordhealbach O'Brian; i.e., 'the killing of Cormac Mac Carthaigh by Torlogh O'Brien is a very surprising act.'" Dr. O'Brien added that by virtue of the "marginal remarks of the writer of that inestimable manuscript, I have been enabled to furnish the keepers and overseers of the British Museum with a note, whereby the antiquity of that manuscript is ascertained and fixed at the year 1138."

This volume has been mentioned by various writers. A description of it under the title of the "Codex Mælbrighte" was communicated to the Royal Irish Academy, in 1851, by the Rev. William Reeves, D.D., who has kindly revised the matter printed in the present publication from this manuscript. From these specimens it will be seen that, in its interlineations and glosses, it abounds with intricate and obscure passages written in a very contracted style.

ANNALS BY TIGHERNACH. — Tighernach O'Braoin, the earliest Irish compiler of annals of Ireland, was abbot of the monasteries of Clonmacnois and Roscommon, and died in the year 1088. Of the oldest and best copy of his annals now known but 12 leaves survive. In one of these will be found Tighernach's observation that all the monuments of the Scots (Irish) were uncertain till the time of Cimbed, King of Ulster, whom he synchronised with Ptolemy Lagos, about 300 years before Christ.

This copy of Tighernach's annals contains some Greek characters, and is probably of a period but little later than his own time. It formerly belonged to Sir James Ware, and is now preserved in the Bodleian Library.

Tighernach's Annals, it has been observed, "are scarcely more valuable for the material of history which their own pages furnish, than for the proofs they afford of still earlier records existing when they were written; records which, as appear from the dates of eclipses preserved by this chronicler, and which could not otherwise than by written memorials have reached him so accurately, must have extended, at least, as far back as the period when Christianity became the religion of the country. Another service conferred on the cause of Irish antiquities by this work, independently of its own intrinsic utility, arises from the number of metrical fragments we find scattered throughout its pages, cited from writings still more ancient, which were then evidently existing, though at present no other vestige of them remains. That Tighernach had access to some library or libraries furnished with books of every description, is manifest from his numerous references, and the correctness of his citations from foreign authors, with whose works we are acquainted, may be taken as a surety for the genuineness of his extracts from the writings of our native authors now lost."

ANCIENT GOSPELS: Harleian Collection, British Museum, No. 1023.—This copy of the Latin Gospels, mainly in the Vulgate version, is defective at the commencement of the Gospel of St. Matthew, and may be assigned to the early part of the twelfth century. With the Gospels of the other three Evangelists, it contains verses on Christ, succession of kings of Egypt, verses on the biblical books, names of the seven sleepers, and prologues to Luke and John. Four pages from this manuscript are represented on the final plate of the present issue.

The plan for the publication, that the specimens should be reproduced in accordance with the originals, in dimensions, colours, and other features, renders much descriptive details on these heads unnecessary here. The certification of the final impressions of the plates executed at the

Ordnance Office, Southampton, and the custody of the documents sent to be photozineographed there for this work, have been entrusted to W. B. Sanders, Esq., Assistant-keeper of the Public Records in England.

It is unnecessary to observe here that many difficulties are incidental to a publication of this nature, more especially when, as in the present instance, the editorial and artistic portions have to be carried on in two places—Dublin and Southampton.

In the next issue the series will be continued from the early part of the twelfth to the end of the thirteenth century. J. T. GILBERT.

### THE ROYAL ARCHÆOLOGICAL INSTITUTE.

ON Wednesday, the 22nd ult., the first excursion of the Institute was made to an old crenelated mansion about two miles from Ripon, in Yorkshire. It is known as Markenfield Hall, and was for many years in the possession of the family whose name it bears, but is at present in the possession of Lord Grantley. To the chagrin of the members, the house was found to be transformed into an ordinary farm-house, and the proposed alterations will destroy its antique appearance. An engraving of it is to be found in the "Domestic Architecture of the Middle Ages." The moat was found to be drained, the park ploughed up, and the courtyard a mass of *débris*. Mr. J. H. Parker described the features of the old building, and regretted the alterations about to be made. Sir Gilbert Scott denounced in strong terms the "Vandalism" which authorised the destruction of so interesting a monument. Mr. G. T. Clarke thought that Lord Grantley was unaware of what was being done, and it was resolved to forward a remonstrance to his lordship.

The Institute next proceeded from Markenfield to Fountains Abbey, passing by Fountains Hall, built by Sir Stephen Proctor in the reign of James I. from the remains of the Abbot's house. The mansion is a fair specimen of the architecture of the Jacobean era. A few members inspected the interior, which contains some rare tapestry, said to have been manufactured at Fulham; and a quaint lantern was shown, described as the one which lighted the Abbot of Fountains when he walked by night. In the cloisters of the abbey Lord Ripon provided a sumptuous luncheon for upwards of 300 guests, comprising all the leading members of the Institute and a large number of the gentry of the neighbourhood. Speeches were delivered by the noble marquis, the Bishop of Ripon, and Mr. G. T. Clarke.

After luncheon, Mr. Edmund Sharpe described the magnificent ruin of Fountains. Commencing at the northern or western porch, he pointed out minutely the leading features of the original structure, and the alterations made in the fifteenth century. The peculiar arrangements of the stately nave, the transeptal chapels, and the tall pillars of the lady chapel, were pointed out, together with the singular arrangement of the piscina attached to the six altars still remaining therein. From hence to the chapter-house, frater, kitchens, and refectory the large party went slowly along, and at the "lavatory," so called, in the south walk of the cloister it was discovered that it was used for "washing the feet" of the monks. Throughout the inspection Sir Gilbert Scott made some pertinent observations, one of which brought to light the remains of one of the marble pillars of the refectory mentioned by Leland. The cloisters of the abbey were described as the day-room of the *Domus Conversorum* by Mr. Sharpe; but here Mr. Mathew Bloxam, the author of "The Principles of Gothic Ecclesiastical Architecture," expressed a doubt as to the correctness of the ingenious theory of Mr. Sharpe, whose description of the "Hall of Justice" was also questioned. The drainage and sewerage arrangements of the old Cistercians were pronounced admirable, and all were agreed as to the beauty of the site they had chosen for one of their largest abbeys.

A voto of thanks was passed to Mr. Sharpe, and then the party went off by cliff, stream, and waterfall, through pleasant scenes to the grounds of Studley Royal, and from the Watergate the entire party proceeded to Ripon.

In the evening a *conversazione* was held in the temporary museum at the public rooms. The chief features were the English manuscripts of Mr. William Bragge, of Sheffield, and a collection of old printed books and many rare manuscripts by Colonel Brooke, of Armistage Bridge, near Huddersfield. The local antiquities were well represented by flints, bronze celts, beads found at Thornborough and neighbourhood, Roman plaster pavements, lamps, toys, altars, and other relics from Castledyke and Aldborough (Isurium). A good collection of knives and cutting implements of various kinds, of different ages and countries, were also on view, and admired. The old Ripon trade of spur-making was fairly illustrated. A service book which belonged to Mary Queen of Scots, was sent by Lord Herries, together with some needlework of the unfortunate queen, said to be the leading-strings of James I. The museum was crowded, and a number of the townspeople got up a display of fireworks in honour of the Association.

On Thursday the Mayor and Corporation of Richmond invited the Members and visitors of the Institute to a luncheon at the Town Hall. Previous to this luncheon the Pre-Monstratensian Abbey of Easby was visited, under the guidance of Mr. Sharpe. The picturesque abbey is situated on the banks of the River Swale. The refectory, gate-house, and offices are the chief portions remaining. The geometric windows are considered very elegant, but the irregular ground plan was subject to much discussion. The abbey was founded in 1152 by one Roaldus, then Constable of Richmond Castle, and was dedicated to St. Agatha. The Abbot's Elm near to the church yet remains, and the church contains a fine series of zodiacal pictures on the walls of the chancel, and the Norman remains are interesting. A long walk to Richmond Castle delayed the party for some time, but, arrived there, the Mayor in his robes and chain of office, accompanied by his mace-bearer, received the Institute, and offered all refreshments before the ruins of the castle were visited under the guidance of Mr. Clarke. The great Norman keep is in a good state of preservation. There are three wards or baileys and the remains of two chapels, that in Robin Hood's Tower was the object of much attention. The Norman hall exhibited some signs of herring-bone work. Mr. Clarke gave a brief history of castellated buildings from the roadway built against the curtain wall behind the keep and Robin Hood's Tower, touching upon the powerful family of the Fitzolans of Brittany who built the castle, and showing how little it had suffered from attacks from without. The disfigurement of the great court by the erection of the militia stores gave rise to some satirical remarks on the part of the company, and subsequently elicited from Lord Ripon some humorous retorts. At the luncheon, Lord Houghton alluded to Henry Fitzroy, Duke of Richmond, who, if he had liked, could have changed the course of English history. He would possibly have succeeded his father, Henry VIII., who would not then have been divorced, there would have been no Reformation, and the two archaeological societies would not have so many ruins to visit. The desecrated church in the market place was briefly glanced at. Mr. Fairless Barber pointed out the leading features of the church of St. Mary before the party proceeded by special train to Ripon.

At night the Marchioness of Ripon "received" the Institute and a large party of the surrounding gentry at Studley Royal, the grounds and gardens being illuminated for the occasion. The band of the Ripon Volunteers was in attendance, and a second display of fireworks at Ripon finished the greetings, the party not separating until a late hour.



## THE DRAMA IN DUBLIN.

THE Drama in Dublin just now was never at a lower ebb, although theatrical activity is rife everywhere. Our theatres are crowded mostly with the cast-off actors and actresses of the London music halls. Between new music halls and furnished theatres the game will be played out, and little will be witnessed but trash, trash, trash. We had a Press in Dublin once that could dare to speak the truth, and knew what dramatic genius was. Alas! there is scarcely an organ now but sells itself body and soul to "puff, puff, puff." If the betting lists are being knocked on the head, the law still leaves the medical and theatrical quacks alone, and, to the scandal of journalism, the press has become the agents and apologists of a number of social pests. The drama, forsooth! There is no regular drama now in the city; nearly all is dry-rot and abomination. Alas! poor Dublin.

## "LIFFIANA."

We comply with the request of Mr. Walker, as he conceives a wrong impression may have been created by some remarks made in reference to his plan for the temporary purification of the Liffey:—

TO THE EDITOR OF THE IRISH BUILDER.

SIR.—In your issue of the 15th inst., under the above heading, the following passage occurs:—"Sir John Arnott's plan (i.e. Mr. Walker's plan) has, however, been proved impracticable by Mr. Bindon Stoney, the engineer of the Port and Docks Board." I beg to refer you to the *Irish Times* of the 13th inst., which gives the particulars of Sir John Arnott's proposal and Mr. Stoney's report, from which you will see that Mr. Stoney does not use the word attributed to him, and did not "prove" the plan "impracticable." I presume you had not seen the documents referred to, when your article was written. Permit me, under those circumstances, to ask you to insert my letter, description of plan, and Mr. Stoney's report, which will enable your readers to form a judgment on the merits of the proposal, and remove the wrong impression created by the incorrect statement which has been circulated.

ROBERT WALKER,  
Architect and Engineer.

17 South Mall, Cork,  
17th July, 1874.

The following is a detailed explanation of plan, with Mr. Stoney's report thereon:—

The sewage is discharged at low water directly on to the foreshore, and, adhering to the stones, is exposed to the action of the sun, and emits the most offensive effluvia. The tide returns and recedes without dislodging this slimy deposit, which daily becomes more obnoxious until the return of the abundant supply of water in winter, which covers the bed of the river, thus diminishing the nuisance.

It is proposed to impound the water at ebb tide in three sections by the construction of low weirs giving a minimum depth of nine inches at the up-stream end of each reach, so as to insure the bed of the river being constantly covered.

The sewage will then discharge into water instead of on the foreshore, the generation of gases will be checked by the use of the best and only disinfectant at hand, water, which will be changed twice in the 24 hours, and the creation of the nuisance to its present intolerable extent will be prevented.

The bed of the river from King's-bridge to Carlisle-bridge has a fall of 4 ft. 6 in. The weirs need only be 2 ft. 3 in. high each over the general line of the bed of the river, so as to impound 9 inches of water at the shallowest or up-stream end of pond. At present when a barge is waterborne at Messrs. Guinness' wharf there are 4 ft. 6 in. of water more than is necessary to float the same barge at Carlisle-bridge.

The two lower weirs which it is proposed to place, one above Carlisle-bridge and the other at Upper Ormond-quay, would be no obstruction whatever to the traffic, and the upper weir would be so placed as to obstruct the traffic to the extent only of nine inches.

The material proposed to be used is concrete, which will accommodate itself to the inequalities of the bed of the river, and can be laid on the shingle or rock; it can be readily formed to the section which presents the least obstruction to the water,

as shown in the drawings submitted. The sides of the weirs are laid at an angle from the quay walls, as suggested in the Lord Lieutenant's plan.

Three sluice valves, worked within the limits of the height of weir, are placed in the centre for the purpose of flushing out the ponds at night at intervals. These can be left open in winter, when there is abundance of water. The centre valve to be kept sufficiently open in summer to admit of the passage of the water which flushes the river at low tide. The quantity varies with the season. The size of the opening should be adjusted to suit. Thus a current would be formed in the centre of the channel to carry off the sewage, which would otherwise have a tendency to hang about the foreshore.

The valves are worked by ratchet gear, which does not rise above the level of the weirs, and can be adjusted at low water by descending the iron ladders at the sides to the top of weirs. Guages to be fixed at each weir, showing the height of water over them at different states of the tide.

The rafts of timber, boats, and barges will be waterborne in these ponds, instead of being injured and tending to increase the nuisance by lying on the foreshore as is very frequently the case at present.

The proposal secures the maximum abatement of the nuisance consistent with the minimum obstruction to the traffic of the river. The nine inches reduction of the depth of the upper section of the river is of less moment than the immense relief to the public which will be secured by the execution of the proposed works.

7th July, 1874.

SIR.—Referring to Mr. Walker's proposal for abating the Liffey nuisance, I beg to report as follows for the Board's information.

The device of weirs is a very old one, and has been frequently suggested. If Mr. Walker's project be carried out, the present steam navigation above bridges will be stopped. Three still-water reaches of more than 2,000 feet in length each will be formed during several hours of each day, and in summer weather these reaches will be charged with sewage which in place of flowing seawards as at present at ebb-tide, will have abundant opportunity afforded it of depositing the matters in suspension on the bed of the river and foreshore, raising the latter and generating foul gases. The fluid sewage retained by the weirs will be carried higher up the river by the returning flood, thus aggravating the evil.

From twenty-five to thirty millions of gallons mixed water and sewage which now scour the lower part of the river daily, and help to flush it out at ebb-tide will be pounded up, and a consequent deposit of sewage mud may be expected below bridges.

In conclusion, I may add that I know of no practical remedy for the present polluted state of the river than intercepting sewers. They have been tried elsewhere with success, and there is nothing in the condition of the Liffey that should render it an exceptional case, or demand different treatment from what has succeeded elsewhere.

(Signed), B. B. STONEY.

The Secretary, Port and Docks Board.

In reference to the above report, Mr. Walker observes in an already published letter in a contemporary:—

It is only necessary for me to observe that Mr. Stoney's report, as will be apparent to any one reading the details of my plan, completely ignores important positions of it, and that, so far, it fails to fulfil the ordinary conditions of a report. It is also illogical in condemning my scheme for the abatement of the Liffey nuisance, on the ground that it does not effect—that it was not intended to effect—the drainage of Dublin. My object was to abate the nuisance, as it exists at present with the least possible obstruction to the traffic. I believe that that object is attained in my plan, and that, if Sir John Arnott's proposal be adopted, there will be a complete temporary abatement of the nuisance, pending the maturing of other plans, and the execution of the drainage scheme. I made no proposal whatever with regard to dealing with the sewers, for the simple reason that it was outside my instructions, and formed no part of the scheme under discussion.

We are not disposed to throw cold water upon any practical or practicable scheme, come from what quarter it may, for the abatement of the Liffey nuisance; but at the same time we shall oppose tooth and nail all attempts on the part of Corporate authority to shirk a plain public duty which ought long since to have been performed. The question now is, not whether this plan or that is practicable, but which is the best and most economic in view of urgent exigencies? We have been given to understand that Mr. Stoney stated that Mr. Walker's plan was

decidedly impracticable. We do not exactly go so far, for we believe Mr. Walker's plan could be carried out, but we are not prepared to say it would be successful in its operation. We hold the same opinion in respect to the other plans proposed. All the plans proposed have drawbacks, and the best of them could only be partially successful. Intercepting sewers are needed; but in carrying out such a system of sanitary relief for our city, it is not to be argued that the scheme must of necessity partake of the dimensions of a gigantic project devised more with the view of being made a milch cow of by jobbers than a necessary improvement for the interest of the community at large.

## THE DUBLIN MAIN DRAINAGE SCHEME.

THE citizens have at length been roused to take action on the head of this ill-digested and essentially *jobbing* scheme. It may be thought that a journal like ours should rather be an advocate of than an opponent to engineering work, and that such a scheme as the Dublin Main Drainage would be an advantage to the profession and to building industry. We reply, that we are opposed to all dishonest schemes, whether they are of an architectural, engineering, or other nature. In addition, we are opposed to them when their execution is likely or certain to become disastrous to the community. Dublin, with her present load of taxation, is unable to undertake the present drainage scheme; but apart from this, the scheme is defective in many particulars previously pointed out in this journal. If carried out in its present form at a ruinous expense, it would be found that before it could be completed a large amount of supplemental work would have to be performed. The subject in all its details requires a re-consideration, so that modifications may be made to suit the scheme to the present circumstances of the city of Dublin, financially and otherwise.

## NEW R. C. CATHEDRAL, SLIGO.

ON Sunday last the above cathedral was opened with a ceremony of consecration. There were present on the occasion a large number of dignitaries, including Cardinal Cullen, the Primate, and several members of the Dominican and Franciscan orders.

## OBITUARY.

THE LATE JOHN FRASER, C.E.

A MAN who rendered the country some service has just passed away—Mr. John Fraser, C.E. His biography (if written) would form a valuable record of the advancement of several of the northern counties, as he was one of the county surveyors appointed in 1834. Down was the county in which he first acted, and there he laid out miles upon miles of excellent roads, and executed other important works. Amongst some of the important works with which his name is associated may be mentioned—Albert Bridge and Queen's Bridge, Belfast; the railway from Newry to Enniskillen; the Belfast and Holywood Railway; the Newry and Warrenpoint, and the County Down lines. He was chosen by his brother Masons, in conjunction with Mr. Walker, architect, to carry out the testimonial to the memory of the gallant General Gillespie in the town of Comber. He passed to the county surveyorship of Donegal in 1852, and thence to the County Cavan, throughout both of which are to be found evidences of his foresight and professional skill. During his long and successful career he gave evidence of high powers and corresponding industry, and the scenes of his labours present memorials of him of which



any public official might be proud. The deceased was the eldest brother of William Fraser, C.E., who died in India on the 11th April, 1874.

### ACCIDENTS.

A mason named Holmes, in the employment of the contractor for the new chapel at Enniskillen, whilst working at the inside of the tower, missed his footing and fell to the ground from a height of 80 feet.

By the upsetting of a hackney car whilst the driver was making an effort to get out of the way of a tram car at Newcomen Bridge on Sunday evening, Mr. McNaughten, manager of the Shelbourne Hotel, Stephen's Green, unfortunately lost his life.

### DOINGS IN DROGHEDA— THE SCHOOLMASTER ABROAD.

If we are to accept the reports in the local papers, we greatly fear that the "schoolmaster is abroad" from Drogheda, and that the sooner he returns home and opens an evening school for the use of a few of the Commissioners the better. When the engineer's report was read at a late meeting, a notice of which report we give elsewhere, a discussion ensued which certainly "bangs Banagher" for scholastic refinement. If we could believe the local reporter purposely misrepresented the words of the enlightened Commissioners, we would vote that the spiteful fellow should be had up at the next meeting and be made to go down on his knees for making such a laughing-stock of them. No; it cannot be. The reporter must have done his duty, and consequently we accept the following as true in substance and in fact:—

Mr. Connolly wished to make a few remarks with regard to what was just read. In the first instance he wished to say that shoals do not generally accumulate in all rivers as stated; and, in the next, that their own old dredge, if fully worked—which, it would seem, it was not—would be able conveniently to remove the shoals that have now gathered at the mouth of the Boyne. He did not, in the least, object to getting a new dredge; but, he asked, where were the funds to come from? They may all talk as they liked, but that was the real question. With regard to the present dredge, Mr. McMartin now contradicted his former statements about her. He said in his report that she is not fit to go outside the bar. Not long ago he said she could work very well there—

Mr. McMartin—I beg your pardon—

Mr. Moore—Oh, no, Mr. Connolly. What he said was that she could work well inside.

Mr. Connolly—I beg your pardon. He said both in the river and outside it.

Mr. Moore—Sure you don't know anything about the bar. You wasn't down with us the day we inspected it.

Mr. Connolly—I was there as often as you. I resided there for four years. My brother, who is an engineer, told me about it. Several of the captains spoke to me of it, too, and then my own experience—

Mr. Moore—Well, Captain Heany—

Mr. Connolly—Captain Brannigan told me that all that was wanted to be done to the river itself could be got at without a dredge at all.

Mr. Mangan—Now, Tom, I'm really surprised at you. You are talking a lot there about this and that, but tell us something about the money. You are promising us thirty thousand for a long time.

Mr. Connolly—I did, but it wasn't my fault that you didn't get it. I laid a plan before you that would have enabled you to raise a loan at the rate of 4½ per cent. But nothing for the good of the port will be done. You allow Liverpool men, who have no interest here, to do everything their own way.

After a short silence, The Mayor remarked that there was no doubt the dredge they now had was a very bad one.

Mr. Moore—We all admit that.

Mr. Mangan—I want to ask one question. Did the engineer ever try to put the dredge to work on the bar?

Mr. McMartin—She is now on the river for forty-five years, and never, even in her best days, did she go there but once.

Mr. Mangan—Well, I don't see the fun of keeping a staff of men on board her doing nothing. We should send her out to the bar and keep her working there.

Mayor—But don't you hear that if there is even a ripple on the sea she will not stand it.

Mr. Moore—Indeed, I think we may rest satisfied. The engineer is doing his best, and if he sees proper he will bring the dredge to work on the bar.

Mr. Connolly—I know that, and I don't want to blame him at all.

Sure, and we don't want to blame the Commissioners at all, at all. It wasn't their fault that the old dredge didn't know how to behave itself; and it is mighty bad policy entirely, as Barney Sheehan would say, for a lot of common council men to be exposing their ignorance in standing up to sit down after speaking of what they don't know, at all, at all.

Bravo! Drogheda. Long live your Commissioners and your Corporation, and may you obtain the loan you require at 2½ per cent., for it would be a pity to keep you out of it, knowing how wisely you can expend it.

### A RHYME IN SEASON.

(After Campbell.)

On Dublin, ere the tide is low,  
When mid-day sun does warmly glow;  
How fresh and scentless is the flow  
Of Liffey, rolling pleasantly.

But Dublin feels that all's not right  
When the tide leaves (perhaps at night),  
And stenchy fumes exhale to blight  
The freshness of her atmosphere.

Our Corporators talk away:  
From year to year they say their say;  
And, like a group of donkeys, bray,  
And money spend in revelry.

To speecing all their time is given,  
With prate the Council walls are riven—  
Their eloquence, like bolts of heaven,  
Would silence earth's artillery.

'Tis morn; the race is nearly run;  
The "Drainage Scheme" is nearly done;  
'Tis time your filthy thread were spun—  
Howl in your stinking canopy!

The combat depens: On, ye brave!  
"Main Drainage" millions or the grave.  
Wave, taxmen, twelve and sixpence wave—  
Yes, "charge" with all complacency.

Soon, soon the ghost of trade we'll meet,  
Taxation for its winding sheet,  
And every shop in every street  
Shall be a trader's sepulchre!

A STENCH STRUCK FEMALE.

[The *animus* of the strong-minded female who sends us the above verses is not unwisely displayed, so we give insertion to her lines, although some of them are a long way "after" Campbell.]

### SANITARY AND OTHER NOTES.

THE sanitary or rather unsanitary condition of the City remains unchanged. Street-hawkers or basket-women are being prosecuted for obstructions, while the greatest offenders—the shop-keepers, who are monopolising half of the footways, are allowed to violate the law with impunity. Both the Commissioners of Police and the Corporate authorities are to blame in this matter, and we would be pleased to see magistrates directing attention to the matter the next time a street-hawker is brought up charged with obstructing the thoroughfare. The magistrates themselves cannot be ignorant of the fact that several of the footways of the principal streets north and south of the Liffey are covered with brokers' goods, and with hucksters' and provision mongers' commodities. The nuisances attending some of these trades are too apparent, and call for the active interference of the police magistrates and the enforcement of the Sanitary and Towns Improvement Acts.

NORTH DUBLIN SUBURBS.—At a meeting of the North Dublin Union, the foul condition of the river Tolka was again discussed. Mr. Magrane, relieving officer, reported that in compliance with the direction of the board, he had called the attention of Mr. Norman, agent of the Mountjoy estate, to the condition of the Tolka river, with a view of having the bed of the stream cleansed. Mr. Norman desired that he should be served with a regular notice, in order that he might submit it to the solicitor of the estate. Mr. Franklin said the state of the river was intolerable, and between the Dublin Corporation, the Clontarf Commissioners, and the union authority the matter had been handed about for a long time, but nothing had been done. Mr. Thorpe was certain that if the Corporation had anything to do with it the nuisance would be at once remedied (?) Mr. Franklin said the Clontarf

Commissioners were anxious to do all in their power, but they had no jurisdiction. They had promised to give £20 towards the expense of abating the nuisance. After considerable discussion, it was ordered that notice be served on Mr. Norman requiring the abatement of the nuisance, and that Mr. Magrane should report to the board at their next meeting.

BRAY.—At a late meeting of the Commissioners a formal petition to a Select Committee of the House of Commons against the Dublin Corporation Bill was read and adopted, and given to the solicitor to be presented. The petition in effect states that under the new bill the Corporation would have power to raise the price of Vartry water one-half in the townships. An apologetic letter was read from the proprietor of a Dublin newspaper, for a paragraph on this question, believed by the board to have reflected on them in their official capacity. The letter was inserted on the minutes, and the matter dropped.

DROGHEDA.—The engineer to the Boyne Commissioners, Mr. McMartin, in his report makes reference to the accumulation of sand at the mouth of the river, caused by the recent high spring tides—a circumstance over which there was no control, and the cause of which it would be superfluous to explain, further than to say that it was common to all tidal rivers. The old dredge was much complained of as being unable to remove those shoals. Its general debility prevented any extensive or useful work being undertaken at the river side of the bar, and the top-heaviness of the clumsy old machinery, together with the out-of-date fashion of build, rendered it so liable to topple over that it became a hazardous task to take her outside, or on the bar, to do what is most essential. The report contained several suggestions such as McMartin has very often laid orally before the board, as to the best mode of rendering the navigation of the river perfect and free from all obstacles, and a recommendation was given in favour of the class of dredging machine lately brought under the notice of the Commissioners by one of their body—R. B. Daly, Esq.—as the only apparatus capable of performing effectually, and at the same time expeditiously, all that was required for that purpose.

### HOME AND FOREIGN NOTES.

Seventy-five architects have sent in plans for the proposed Church of the Sacred Heart, Montmartre, Paris. They have selected six of their number to form part of the jury which is to award the prizes, consisting of the sums of 12,000, 8,000, and 5,000 francs, and seven sums of 1,500 francs each. All the plans sent in are to be exhibited in one of the wings of the Palace of Industry.

APPLICATION OF SEWAGE.—Some time since the Paris authorities set up a large steam engine at Clichy to supply the sandy plain of Gennevilliers on the opposite side of the Seine with sewage water. The experiment has proved successful. The market gardeners are now eager for a full supply, and the machinery is not powerful enough for the extension of the service. On the other hand, the complaints of the increasing foulness of the river from the sewage still turned into it, have become so loud that it has been determined to erect another engine at the same place, so as to draw off 1,000 to 1,200 litres of sewage per second, which is about half the quantity brought by the collector; at the same time large conduits in masonry are to be constructed to carry the sewage to points which it has not yet reached. The cost of this work will be about £40,000.—*Society of Arts Journal*.

NEW SPIRE TO WATERFORD CATHEDRAL.—It has been resolved by the Diocesan Synod to grant £500, payable in five years, from the fund left by the late Bishop Gore for the repairing of churches, in aid of the erection of a new spire to Waterford Cathedral (the present one having been condemned as dangerous by the diocesan architect), on condition that a similar sum be privately provided.

NEW JOINT.—A method for making joints to unite the sides of boxes and other matters has been recently patented by Mr. W. M. Beaufort. The two pieces of wood to be fastened together are first mitred in the usual manner, and a hole is then drilled vertically in each piece, from the bottom upwards, at a short distance from the mitred edge. A channel or groove is then cut by a saw or otherwise from the mitred edge to the drilled hole. This channel is of a less width than the diameter of the hole, and may be cut either parallel to the sides of the piece of wood, or at right angles to the mitre, so that when the two pieces are put together a continuous channel shall be formed between the two holes. The two pieces are then held tightly



together, and a key is formed by running metal, such as lead or "fusible metal," into the channel; by this means, the key is cast in the place which it is to occupy. The key may also be made separately, of solid metal, and driven home into the channel.—*Society of Arts Journal*.

### MANCHESTER, AND ITS FREE LIBRARIES.

In local matters the public spirit of Manchester has rarely been equalled and never surpassed. The wealthy have never failed in their duty. The public buildings which adorn the city are among the finest and most costly of modern structures. The Assize Courts, the Exchange, the new Free Trade Hall, and the Town Hall are splendid examples of their kind. The charities are numerous, extensive, and munificently supported. Including the Peel Park at Salford, which is really a Manchester institution, there are four free parks, three of which were purchased by public subscription. To Manchester belongs the honour of establishing the first free library, in 1852, thanks to the unceasing exertions of Sir John Patten and Dr. John Watts. There are now one splendid Reference and six district Lending Libraries, each with a news room attached. From the last published report (the twenty-first) I find that during the year 1872-3 "609,462 volumes were issued for home reading, 149,622 volumes were used by 137,728 readers in the branch reading rooms, 92,852 volumes and 91,702 specifications of patents were issued in the principal or Reference Library to 54,172 and 984 readers respectively, being in the aggregate 943,708 issues to 703,300 readers." It is also stated that 1,741,960 persons have used the reading rooms. "This, added to the number of borrowers and readers, makes an aggregate of 2,501,564 persons who have availed themselves of the free libraries" in one year. Every reader will remember the magnificent Art Treasures Exhibition which was opened in Manchester in 1857. In 1847 the town was created a see, and the Rev. Dr. James Prince Lee, then Head Master of King Edward VI.'s Free Grammar School at Birmingham, was appointed the first bishop; the second is the already famous Dr. Fraser. In the words of Mr. Disraeli, "What art was to the ancient world science is to the modern—the distinctive faculty. In the minds of men the useful has succeeded to the beautiful. Instead of the City of the Violet Crown, a Lancashire village has expanded into a mighty region of factories and warehouses. Yet, rightly understood, Manchester is as great a human exploit as Athens."—*Gentleman's Magazine*.

### TO CORRESPONDENTS.

**CITIZEN.**—As we write, the Irish Public Health Bill is passing through the House of Lords. The amendments made are slight. We will probably draw further notice to some features of the bill.

**A CARPENTER.**—Read "Practical Geometry for the Architect, Engineer, Surveyor, and Mechanic," by E. Wyndham Tarn, published by Lockwood and Co., London.

**SANITAS.**—"The Sanitary Record," a new journal, is devoting some space to the ventilation of the subject. The matter was written upon long years ago in the *Builder*, which was the first journal to pay attention to the subject. However, it cannot be written upon too often.

**ARCHITECT (London).**—Thanks.

**C. W.**—Thanks. You are quite right when you say:—"I am sure you wish any information you offer to be as correct as possible." Such has been our desire during the fifteen years of our existence.

**ERRATUM.**—In our last number, p. 192, col. 2, line 48, for "Kilmouse" read Kilmoevee.

**A STAIRCASE HAND.**—In London at present a storey of eighteen steps common staircase run of deal, handrail No. 2, inch bar balusters to each step, 1½ inch yellow deal wrought treads and inch risers, 3 ft. wide, glued, blocked, and bracketed, 1½ close string boards, bracketed for plastering—three would cost about £9 10s.; with mahogany handrail of 2½ Honduras material, about £10. For the better class of staircase—a storey of twenty steps, with half space landing complete, 1½ inch yellow deal treads and 1 inch risers, 3 ft. wide, to 6 inch well-hole, mitred to 1½, framed, rebated, and beaded outside strings, with retained moulded nosings, glued, blocked, and bracketed, with No. 2 proper fir carriage, and two turned balusters 1½ inch by 1½ inch to each step, including 2½ inch by 1½ inch Spanish mahogany oval handrail and iron newel, with curtail step and scroll—£19 6s. A similar staircase to the above, but with sunk and moulded outside string, £20 5s. Staircase hands in London generally supply labour only.

**RECORDED.**—J. B. (Cork).—A Foreman (Belfast).—H. G. (not suited).—O. B. (send plans).—G. and Son.

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ILLUSTRATIONS:  
NEW CATHOLIC HALL, BELFAST—  
INTERIOR AND EXTERIOR VIEWS.

### NOTICE.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

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# The Irish Builder.

VOL. XVI.—No. 352.

Our Street Nomenclature—Past and Present.



UBLIN exhibits a curious compound in the names of its streets, lanes, courts, rows, and alleys. The origin of some of these names would be somewhat difficult to trace,—some are without doubt saintly or of historic origin; others quite the reverse. During the seventeenth and eighteenth centuries we had several oddly-named localities, and not a few of these remain still, some of which would doubtless shock sensitive ears to hear. A few changes have taken place since the earlier part of this century, even in respect to perfectly harmless and proper names, in consequence of the evil repute of the places. Despite, however, of the orders of commissioners or corporate bodies, people have continued to call localities by their old names; and half a century has often been found to elapse and a generation to pass away before the olden name of the street or lane will cease to be used. There are but few of our modern streets in this city called after distinguished national characters or events—indeed many of them are essentially English and foreign, and the few which have names “racy of the soil” are rather insignificant streets.

When Hollinshed visited Dublin, the names of some of our old streets afforded some curious examples, but even then, corruptions had taken place and really historic names were twisted and transformed out of recognition or identification. It is amusing to read Hollinshed's description of some of the names of places in old Dublin. Though an observant chronicler he recorded much from hearsay. From his list of “Names of the Streets, Bridges, Lanes, and other notorious places in Dublin,” we will extract some remarks:—

“The Dammes-street, the Castle-street, stretching to the Pillories; Saint Verberosse's-street [Werburgh-street], Saint John his street, alias Fishamble-street; Skinner's-row [Christchurch-place], reaching from the Pillories to the Tole Hall [Tholsel] or to the high crosse; the High-street, bearing to the high pipe. This pipe was builded in the year 1308 by a worthy citizen—John Deer [John Le Decer, Provost of Dublin, and builder of old Ballybough Bridge in 1313. This worthy benefactor to the city died in 1332]. He builded long before that time the bridge hard by Saint Woolstan's that reacheth over the Liffie. The Newgate-street, from Newgate to Saint Audoen his Church; Saint Nicholas his street, the Wine Taverne-street, the Cooke-street, the Bridge-street. This street, with the greater part of the keie [quay], was burnt in the year 1304. . . . Saint Thomas his street: this street was burnt by mishap in the year 1343. The new buildings, the New-street, Saint Francis his street, the Kowme [Coombe], Saint Patricke his street, the backside of Saint Sepulchre, Saint Kevin his street, the Paule' or Paul Mill-street,

St. Bridgid's-street, the Sheepe-street, alias the Ship-street, for diverse are of opinion that the sea had passage that waic, and thereof was to be called Ship-street.”

In respect to the latter-named street, our old chronicler continues:—“This as it seemeth not wholie impossible, considering the sca floweth and ebbeth hard by; so it carrieth more colour of truth with it, because there have beene found there certeine iron rings fastened to the towne wall, to hold and grapple botes withal. St. Verborosse's-lane, up to St. Nicholas his street, (now inclosed); St. Michael his lane, beginning at St. Michael his pipe; Christchurch-lane; St. John his lane; Ram-lane, *alias* The School-house; St. Audoen his lane; Keser's-lane. This lane is steepe and slipperie, in which otherwhiles they that make more hast than good speed, clinke their bums to the stones, and, therefore, the ruder sort, whether it be through corruption of speech, or for that they give it a nick-name, commonlie terme it, not so homelie as truly — lane. [The name is rather indelicate.] Rochell-lane, *alias* Backe-lane, on the south side of the Flesh Shambles; the Coke-street lane; Frapper-lane; Giglotte's-hill; Marie-lane; St. Tullocke his lane; Scarlet-lane, *alias* Isouds-lane; St. Pulcher's-lane; St. Kevin lane; the Whitefriar's-lane; St. Stephen his lane; the Hog's-lane; the Sea-lane; St. George his lane, where in old time were builded diverse old and ancient monuments.”

Respecting old Dublin Bridge, Hollinshed remarks:—“The great bridge going to Osmantoune [now Oxmantown]; St. Nicholas his bridge; the Poulegate Bridge, repaired by Nicholas Stanihurst about the year one thousand five hundred forty and four; the Castell Bridge; St. James his bridge.”

Hollinshed's “Chronicles” were first published in 1577, and again in 1587, and the old chronicler died about 1580. Coming to Speed's Map of Dublin, in 1610, we have room for comparison as to names and places, and their changes, their corruptions, or improvements, if you will.

The old bridge at Church-street is marked the “Bridge Gate.” Then we have only two embanked quays, marked respectively, “Merchants'-key,” and “Wood-key,” extending to Newman's Tower, near the site of the present Essex Bridge; Cooke-street is “Coke-street,” and “Rame-lane” and “Woodstock-lane” extend from Merchant's Key to Cooke-street; Kayser's-lane winds round from the last-named street towards the New Gate, leaving St. Owen's Church on the left; Werburgh-street, is “St. Werber's-street,” with an entrance through the Pole Gate; St. Brigid-street, of Hollinshed's day, in 1610 is Bride-street, the same as now; and our present Ship-street is “Sheepe-street;” and the old churchyard and structure of St. Michael le Pole is marked down. Communicating with the two last-named streets we have “Crosse-street,” a street leading across from Bride-street over the end of Sheepe-street, and in through a city gate to St. Steven-street [Stephen-street]. The Coombe is made “The Come,” Kevin-street, “St. Kevan-street.” The names of places marked on the north side of the Liffey in Speed's Map are so few that they may be named here. The Inn's Court, on the site of the present Four Courts, Church-street, St. Michan's Church, Pill-lane, St. Mary's Abbey, and Ostman or Ormuntowne.

The odd and uncouth names that distinguish some localities on the north side of the river we may see are quite modern. In the last and present century we had such places as the following:—Cut Throat-lane, off Cumberland-street E., and another of the same name off Mount Brown, and near the latter place there was a Murdering-lane. A name nearly cognate was Cut Pursc-row, at Corn Market, Bumbailiff-lane, Cabbage Garden-lane, two Carrion-rows, Cheater's-alley, Crosstick-alley, Dirty-lane, Dog and Duck-yard, Dunghill-lane, Goat-alley, Ram-alley, Many Penny-yard, Stocking-lane, Petticoat-lane, Petty Cannons-alley, Pudding-row, Pye-alley, Stirrup-lane, Smock-alley, Marrowbone-lane, Lamb-alley, Duck-lane, Black Pitts, Adam and Eve-lane, Mud Island, Crooked Staff, Protestant-row, Moggy-alley, Paradise-row, and Hell. To please the religious fancies of all creeds we had Mass-lanes, Chapel-lanes and alleys, and Meeting House-yards and lanes. The above is only a short list of our street and lane nomenclature. Some of these names have been dropped of late years, but more remain in all their glory and effluvium.

In London, the Metropolitan Board of Works is yearly making a raid on old localities and altering their names, but not in all places for the better, as we have reason to know. Some new fifth-rate streets have been built within the last twenty years north and south of Dublin, with high-sounding names which are a disgrace to their origin. Uxurious husbands have dedicated streets and villas to their better halves, which are, no doubt worthy of them; but other speculating rascals have rushed in where angels fear to tread, by baptising their brick-nogging, paper-lath-and-plaster structures (built to sell and to kill) after celebrated public characters. The “cat” would hardly be too severe a punishment for such imposters. We have some historic streets in Dublin which will never need to have their names changed, but we have scores of others which deserve their facings stripped off at once. A celebrated name should not be allowed to be disgraced in contact with a third or fourth-rate street of cheap and nasty houses. The page of Irish history is brimful of names that deserve to be perpetuated in roads and streets, to the exclusion of the creation of the egotistic and lick-spittle school.

## PUBLIC WORKS IN IRELAND.\*

THIRD NOTICE—(Conclusion.)

CONTINUING our notice of the Inspectors' Annual Reports, in Appendix C on Landed Property Improvement, we find in respect to the Counties Antrim, Armagh, Donegal, Tyrone, and Down that there has been an increase of drainage loans; and Mr. Thomas S. Irwin, C.E., reports that the largest works in hand are Viscount Templeton's, County Antrim, which are purely drainage works. A number of new building loans have been sought and granted, and the general operations under the acts are proceeding satisfactorily. Of the Counties Carlow, Kildare, Kilkenny, King's and Queen's Counties, Wexford, and Wicklow, Mr. J. Fishbourne reports that many new dwellings have been built by loans—others much improved by the proprietors and by farmers with their own funds. Labour is high-priced,

\* Forty-second Annual Report from the Board of Public Works, Ireland. Dublin: Alexander Thom. 1874.



and not easily procured in localities far from towns and villages, consequently many loans are obtained for building labourers' dwellings and but few for land improvement. On the whole, in the above counties the works seem to be proceeding satisfactorily.

In the Counties of Westmeath, Longford, Roscommon, Mayo, and part of Galway the applications for loans are about the average of preceding years, notwithstanding an increase in the general rate of wages. Mr. William Bond reports that in Westmeath the Earl of Longford is making a large extent of plantation on waste bog land near Killucan, and on the estate of Mr. John Malone. A loan of £550 was obtained for drainage last year, which work was completed recently in a satisfactory manner. Eight labourers' dwellings have been completed on Mr. Edgeworth's property at Edgeworthstown. Loans have been applied for in Roscommon by Mr. Pakenham Mahon for drainage and building works for his tenant, Mr. Roberts, and smaller loans have been obtained for reclamation and road-making. In Mayo, inspections have been made on the properties of Rev. D. A. Browne, Charles Downing and Joseph Bourke, Esqrs., for drainage, road-making, and planting; and an application has been made from the Earl of Cavan for a loan of £1,000 for main drainage and road-making on his property in the Island of Achill, where a much larger sum, it is stated, can be laid out with great advantage. Achill, we are certain, stands in need of public works, and their continuance there for some years would greatly benefit the islanders as well as the property of the owners.

Mr. James J. Poe reports that in Tipperary and part of Clare applications for loans for the reclamation of land were of moderate extent during the preceding year, save that of Archdeacon Butson, which exceeded £2,300. The sums, however, for farm buildings and labourers' cottages were considerable. He states it is gratifying to observe that each year more attention is paid to the providing of suitable dwellings for the labourers all through this district. There is a difficulty in obtaining labourers, which may have prevented more applications for loans for thorough drainage and such works. The drainage works upon Mr. Roe's property, which were of an extensive character, have been completed, but those upon other estates are progressing slowly, from the causes mentioned. Those upon the estate of Archdeacon Butson, in the County Galway, are likely to occupy a couple of years. The results of the Land Improvement Act appear to be giving satisfaction.

Coming to the County Dublin, parts of Kildare, Meath, and Wicklow, Mr. Richard I. J. Irwin reports the increasing scarcity of skilled labour and the high rate of remuneration demanded; but, notwithstanding, the working of the Acts in the districts continues to be satisfactory. Twenty-four separate inspections of works in progress were made, and five in preliminary cases where loans were applied for with the intention of improving landed property by drainage, fencing, &c. In the County Dublin a loan was applied for by Matthew J. Corbally, Esq., barony of Nethercross, and Mrs. Eliza Watson, barony of Coolock; in Kildare, by B. P. Fitzpatrick, Esq., barony of North Naas; in Meath, by Thomas Fitzherbert, Esq., barony of Lower Navan; and in Wicklow, by Charles W. Barton, Esq., barony of Ballinacor, North.

In the twenty-four inspections of works in progress in 1873-4, sixteen were connected with distinct loans, nine of which were granted for building purposes and the remaining seven for drainage, fencing, planting for shelter, and road-making. The building cases are those of Charles G. Vesey, Esq., who has erected some "excellent labourers' cottages" at Lucan, and of Mr. William Richardson, who has completed a "suitable farmstead and offices" on his property, near Golden Ball. The roads in progress are said to be "well and carefully constructed, and suitably fenced," and are being made by Robert Exham at Killiney, and for the Earl of Howth at Clontarf.

In Kildare four loans were granted,—two for building and two for drainage purposes. The former are described in "both instances of ranges of well-planned and suitable farm offices," the proprietors of which are—Wm. R. Brereton, Esq., of New Abbey, Kilcullen, and Denis Coates, Esq., of Staplestown in the barony of Clane. The other cases referred to are extensive works of thorough drainage—one at Blackhall, barony of North Naas, on the property of Christopher Rynd, Esq., and the other on that of Major R. W. Hartley, in the barony of North Salt. In the County of Westmeath, four loans were made for building purposes—a large farm-house and offices erected on the property of the Misses Barlow, at Possockstown, in the barony of Morgallin; labourers' cottages on the estate of Lord Athlunney, at Clondalie and Realtogue, and that of George C. Smyth, Esq., at Mellifont; and lastly, some farm offices for Lieutenant-Colonel Magnire, at Ballinacrad, in the barony of Upper Slane, and townland of Dowth. In the County of Wicklow, four loans were granted—one for building and the other three for planting, drainage, shelter, and fencing. The building case is that of Colonel E. S. Bayly of Ballyathur, who was granted two loans for the purpose of erecting three "very superior labourers' cottages" on his property near Ovoca. The other three loans to Wicklow proprietors comprise—one to Charles Frizelle, Esq., for an extensive tract of planting for shelter combined with road-making and fencing, in the barony of Ballinacor North; Major Bookey of Derrybane; R. B. Hudson, Esq., of Mount Slaney—both loans were to defray the cost of open main and thorough drainage, with a small amount of fencing, and planting for shelter. On summing up on the whole, Mr. Irwin is of opinion that all the works are of a satisfactory character, and the working of the Land Improvement Act in the districts he has inspected is unquestionably satisfactory.

We may remark that we would have been better satisfied if some of the building works reported upon were described more in detail as to their materials, plan of construction &c., such words as "excellent labourers' cottages," "suitable farmsteads," "well-planned and suitable farm-offices," conveying no information beyond the merest commonplace; and we are left in entire ignorance as to what extent these buildings may be excellent or suitable in comparison with other buildings erected for a like purpose. Mr. Irwin's report is not, however, the only report which is defective, in not affording practical or technical information on a subject of interest, for nearly all the reports, when dealing with building matters show a like want. Mr. Prendergast's report, noticed in our last paper,

in a building point of view is a more satisfactory one than the others.

Mr. Edward Townsend reports on the County Galway, and parts of Mayo and Clare. The most extensive works visited by him are being carried out by the National Building and Land Investment Company on their property at Port Royal in the County Mayo, where a large amount consisted of drainage, roads, fences, vast tracts of bogs being opened up for the supply of fuel—a scarce commodity in Mayo. In the way of farm buildings, "a very fine substantial range" has been constructed by Mr. John Gregory Martin on his property at Gregory Castle, in the County Clare. The same gentleman has obtained from the Board a further loan for the erection of labourers' dwellings—a want much felt in the locality. Several works are in progress under loans from the Board. The scarcity of labour is alluded to; and its high price is put down as the deterrent which prevents many persons from engaging in works at present. The inspector is of the opinion that the building of good comfortable dwelling-houses might form some inducement to the labouring class to remain in this country, who, for several years, have been emigrating in large numbers to America and Australia. He is also of the opinion that loans issued by the Board for the purpose of planting for shelter, or otherwise, would also be a great benefit, in consequence of the large demand for firewood, and the great facilities for exportation, a vast amount of timber being recently cut down.

Mr. William Sidney Cox, M. Inst. C.E.I., reports upon the County Limerick and portions of Clare, Tipperary, and Cork. The sum of £2,906 odd has been laid out upon land improvement works, including open, main, and thorough drainage, the erection of new and the removal of old fences, grubbing and clearing land of rocks, &c.; and £3,573 was applied for building purposes in connection with farm dwellings, farm buildings, labourers' cottages, and limekilns. There is a falling off in the annual expenditure, attributable to two causes, namely, the provisions of the Irish Land Act of 1870, and the increased price of labour throughout the country. The former is apprehended to be the true cause. Landlords have, in several instances, refused to assist their tenants in obtaining loans since the passing of the above Act; and it is stated by the inspector, if greater facilities were afforded to tenant farmers in the matter of procuring loans for the several purposes set forth in the Land Improvement Acts, the applications would be considerably increased. There are no instances, it is said, of dissatisfaction being expressed at the result of loan expenditure.

The Counties Kerry and Cork are reported upon by Henry Stokes, C.S. There has been a good increase of outlay both on land improvements and in agricultural buildings in 1873. The inspector is of opinion that the loans ought to be restricted to £40 per house, and speaks of the "absurdities in the way of labourers' dwellings that have been sanctioned at three or four times that cost, are most mischievous and deterrent examples, and should be disallowed." In respect to these remarks the Commissioners append a foot note, reminding Mr. Stokes that his own estimate for a plan of a labourer's cottage, furnished by him to the Board as a specimen, in November last, was £70. The inspector says it is difficult to get plans carried out,



and the most of those sanctioned are enlarged in the execution to suit tenants on good farms, under the designation of labourers' houses. He thinks this practice should be stopped; and, until dwelling-houses for both farmers and labourers are improved, the building loans must be expected to be mostly confined to them, and buildings for cattle will be further postponed. He thinks that a favourite plan of the Scotch byre, with feeding passages between, a mistake, and not adapted for this country. He is of opinion that all our new cow-stalls are too close for this warm climate, and the superiority in condition of the cattle that are *never housed at all*, compared with those stalled in, leads almost to the conviction that we want no such buildings of any kind for dairy stock. Shelter from storm and wet he considers is certainly necessary for horned cattle and sheep, and "we have yet to learn also not to follow the Scotch example in never housing sheep." There are many who, no doubt, will differ in opinion from Mr. Stokes on some of the above points.

Mr. J. T. Cornwall reports also upon a portion of the County of Cork. There is a slight increase on loans in this county, but the loans are small. The price of labour has increased in the district inspected, and it appears that it has become difficult to execute drainage works at a price that would leave a profit, and an objection on the part of proprietors to expend money on land in the hands of tenants. The buildings inspected, some of which are stated to be extensive, are reported to be "executed in a most satisfactory manner."

This finishes the inspectors' reports; and, on the whole, there is much for congratulation, particularly in relation to the desire to provide improved farm buildings and labourers' cottages. The extent of the improvement, however, in this last particular is still very limited; and we hope, in the next report issued by the Commissioners, we may be afforded fuller evidence of building activity, and some more practical details of the style, plan, and materials of the buildings intended to be erected, or in progress.

### "WAKING" THE DEAD AND KILLING THE LIVING.

UNDER the above heading, the conductor of an esteemed professional contemporary in London, some years since, gave a graphic picture of the evils attendant on the reprehensible system of holding "wakes." Not long ago the subject was again forcibly written upon in the same journal. An appalling catastrophe which took place in this city last week has brought to our mind the picture described by Mr. George Godwin. We give an extract, and in doing so refer our readers to the volume, "Another Blow for Life," in which will be found similar pictures of the baneful effects of overcrowding and blood-poisoning:—"Among the London Irish, when death occurs, the neighbours and friends assemble in large numbers to poison one another. We have seen a small unventilated room thronged with neighbours about the body of a child arrayed in flowers and ribbons, lighted by large candles in massive candlesticks borrowed from the publican. During the time of sickness, too, it is the practice to crowd the room. We have heard of thirteen persons round a sick woman in a small back parlour used as a bed-room." Two engravings are given—one of the "Wake," and the other of the "Very Sick Room." We would ask our contemporary's attention to what follows, for our object also is to strive and stamp out the demoralising and debasing practice of holding "wakes," for but few know the extent of depravity—aye, we repeat the word—contingent to them.

On the night of Thursday, the 6th instant,

a "wake" was held at 6½ Little Strand-street, on the body of a male infant *aged two months*. About twenty-five persons had assembled in the drawing-room, and were merry-making, dancing and singing, according to the usual custom, when at about half-past ten o'clock the floor suddenly gave way, and the entire company as well as the furniture of the room, were tumbled to the basement storey. The child's remains were recovered from the debris, and carried to an adjoining house, the lid of the coffin in which they were placed being broken by the fall. The people who resided in the upper part of the house were naturally alarmed, and one of them threw her child out of the window. It escaped instant death by being caught in the arms of a powerful fellow in the street below. But few of those present at the wake escaped without more or less of injury—several were conveyed to Jervis-street Hospital, where one of them, a Mrs. Wade, died on Wednesday. An inquest has been held on her body. To render the scene more appalling, after the crash flames began to burst through the debris, and had it not been for the timely arrival of the Fire Brigade, the scene might have been terrible in the extreme. Let it be also stated that the conduct of the mob was very violent, and many of the inhabitants of the locality appeared to be under the influence of drink, and, instead of assisting, some of them endeavoured to create a disturbance by obstructing the police. Before the accident, the house in question was unfit for habitation, and it is only one more instance of the neglect of our local sanitary authorities in allowing such foul dens to exist in our midst.

And now we would ask, are our countrymen and women so utterly lost to shame as to look with complacency on such wild proceedings? Is it Christian? Is it Catholic or human that the room of death should be continually dedicated to such abominable carnivals of indecency and brutality? Cannot a Roman Catholic Cardinal Archbishop exercise his influence in putting down such infamies; and, in consonance with the doctrines of his church, refuse religious ministrations to persons guilty of holding or attending "wakes" carried on in the manner described? We have known instances of seduction at wakes. Good God! only think of it,—singing, dancing, feasting, obscene songs, more obscene actions, drinking, recitations, smoking, courtships, quarrels, and, eventually, fighting, as a wind-up before dawn. All this has occurred, and still occurs at our Irish wakes, and we do not shrink from painting the picture in its nakedness before the world. On the score of health, if not on that of decency, the practice calls for abolition. We have known the only two rooms of an Irish cottage to be crammed chokefull of mourners,—merry-makers, rather—the floors being the principal sitting accommodation for the majority, and even the bedside of the corpse being utilised by sitters. Bad whiskey, bad tobacco, bad manners, and bad air, being everywhere, the young children imbibing too readily the examples set before them by their parents or neighbours for future imitation. The seeds of disease are often contracted at wakes, and the sight has often been the stepping-stone or starting-point for young females to headlong immorality, the streets, and an early grave.

In a wretched room in Moore-row, off Lower Mecklenburgh-street, a family, consisting of father, mother, and seven children, have been living for some time. The children were all attacked with scarlatina, and remained in the room. Out of the seven two have died. A "wake" was, of course, held in the same room, and it was kept up for *five days*, in order to have the interment on Sunday!!

Many poor families who are living from hand to mouth feel it incumbent upon them to hold what they call a "decent wake" and a decent funeral, if they have to beg, borrow, or pledge for it. The dead need no such attention; and if ever strong language was needed for stigmatising evils, it is in the instance of

these thoroughly disgraceful and diabolical exhibitions called "Irish wakes."

As Irishmen, who are interested in the moral and social advancement of our country, we feel called upon to write as we have done, even at the risk of hurting the susceptibilities of a number of our ignorant or irrational countrymen.

### "NOTHING NEW TO NEWRY."

SINCE our last issue the Newry Town Commissioners have met, and have been "shocked" by the report of the Medical Officer of Health. We have not learned how the nerves of the resident and non-resident editors have been affected, but we dare say they are ashamed of their late utterances. These self-sufficient public instructors defended Newry against all comers, and maintained that the sanitary condition of the frontier town was perfect. The *Irish Builder* was a "mendacious" print, and the *Irish Times* was not a whit better.

The editors in Newry were thanked by Mr. O'Hagan—a wise man, no doubt—but neither the local Press nor the Commissioners could prevent the fact of Newry's very unsanitary condition being exposed. We promised to visit the town—a promise which we would have kept, to test the statement put forward on behalf of the Commissioners. We are almost relieved from the duty by the following report:—

#### TO THE NEWRY TOWN COMMISSIONERS.

GENTLEMEN—My attention has been directed by the Day Inspector (Andrews) to the following cases, all of which require your immediate attention:—

A very offensive cesspool in Power's-entry, off North-street. A bad and dangerous nuisance in Downshire-court, off Lower Water-street. An accumulation of manure in Collins'-court, off Monaghan-street. In No. 1 Bell's-row, a cow and pigs are kept under the same roof with the inhabitants. The sanitary condition of Bell's-row cannot be too promptly looked after, as scarlatina of a malignant type already exists in this locality. The sanitary condition of Nicholson's-court, Ballybot, is at present very unsatisfactory. The top of Hide-market is constantly being covered with offensive slops, which I consider inimical to health. Hook's-yard, off High-street, is in a very dangerous sanitary condition. A cesspool of stagnant water at the top of the Fever Hospital hill, which emits a very noxious and offensive odour. The effluvia and nuisance in all the places referred to above, I consider most prejudicial to public health. I am sorry to say that malignant scarlatina and measles have partially made their presence felt in this district. I would, therefore, suggest that all filthy accumulation in proximity to dwelling-houses should be at once removed, and that a general whitewash should be ordered in the populous parts of the town.—I am, gentlemen, your obedient servant,

ANDREW M'BRIDE,  
Medical Officer of Health.

According to the report of the Town Inspector, he has been kept busy since we wrote in getting nuisances removed or abated in the thickly-populated parts of the town, where, no doubt, there is an amount of overcrowding which it is not judicious to make public. The drainage, we are told, requires to be perfected, and a large number of people required to be noticed. One Commissioner says Dr. M'Bride's is the worst report he ever heard read at the Board, and another thinks if the editors of the Dublin papers heard it, they would have grounds for their "attack" on Newry. What says Mr. O'Hagan, the whilom indignant Commissioner? "It is singular," says he, "that Dr. M'Bride should have occasion to call attention to these nuisances after the lapse of a month. Why did not the Town Inspector take steps to have them removed or abated long since?" Ah! why? It is very singular, indeed; but the reasons are not difficult to find. The Commissioners fed themselves up with the fancy that the town was a paragon of sanitary perfection, and the conscientious journalists of the "frontier town" were willing to keep up the illusion. We hardly expect the rampant journalists will make an apology, having had to eat their leek in silence; but henceforth let all our contemporaries be warned, that they may understand what two "mendacious" journals can and cannot do.



## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

NOVO NOSTER-STREET—(Second Visit.)

MEETING the "Oldest Inhabitant," as agreed upon, he continued his recollections as we went along:—

"As I mentioned to you in our last visit, Professor Von Feinagle took Aldborough House in 1813, and christened it 'The Luxembourg,' and it was partly known by this name for some years, and even marked down in the city maps as such. The Professor resided in Aldborough House, and in conjunction with other proprietors, two other houses were established at Clonliffe (Jones's-road), one for the principal seminary and the other for a preparatory school. The committee of the Feinaglian Institute also took Rossmore House, Kildare-street, for a day school. The affairs of Von Feinagle's School were managed by a committee of fifteen, eleven of whom were chosen by the proprietor. The trustees were, the well-known Bindon Blood, Richard Williams, and Thomas Nowlan. Among the staff and salaried officers were many men whom I remember well, and some of whom have only lately passed from amongst us. A Mr. Costello was master of the preparatory school, and the Rev. Thomas Flynn of the day school. The Secretary, or Deputy to Professor Feinagle, was Mr. Hawksworth; the Chaplain was the Rev. William Lawler; the Professor of Music was Mr. J. Blevit, who resided at that time at 22 Lower Sackville-street. He taught according to the system of Logier, another of our Dublin Professors of Music. J. B. Logier lived for many years at 27 Lower Sackville-street. Subsequently, the establishment of J. B. Logier was at 46 Upper Sackville-street, and was much frequented as a music-seller's and military instrument maker's.

"Feinagle's Music Master and Drawing Master were Mr. Norton and Mr. Sweetman, and about 1818 there were about nine assistant lecturers at the Luxembourg. The Lecturer on Chemistry and Natural and Experimental Philosophy was Dr. Sam Litton; the Physician, William Harty, M.D.; and the Surgeon the well-known Abraham Colles. The domestic arrangements of the house were carried on under the immediate superintendence of Mrs. Von Feinagle. Many gentlemen's and merchants' sons were educated here, and I know instances of architects' and builders' sons receiving their education here, and afterwards being engaged in large building transactions in this city.

"The Luxembourg flourished for several years, and continued to exist for many years after Feinagle's death, his wife continuing, under the trustees, to be connected with it. To stimulate the literary zeal and industry of the pupils, the committee of the Feinaglian Institute, even after the entrance of the pupils into the University, conferred upon those who obtained first places gold or silver medals, and on such as obtained University premiums in their Freshmen years rewards were given or promised equivalent to those awarded by the University. An extensive library of miscellaneous literature was connected with the Luxembourg, with a domestic chapel (with a gallery for parents and strangers), where service was performed on Sunday mornings. I forget exactly in what year Von Feinagle died, but I believe it was shortly after 1820 or '21. The institution continued, however, to exist for ten or more years later, but gradually went down, and was given up as a non-success. Although he was known in the city as a German, an opinion prevailed that he was originally a Jesuit priest, but on what authority I do not remember to have heard. The alterations effected at the instance of Feinagle at Aldborough House greatly changed its internal character, for it was sumptuously fitted up by Edward Stratford, the Earl.

"I am indebted to a friend for a reminder of some lines which appear in a work en-

titled 'The Seven Thieves,' published by John Barlow, a printer in Bolton-street in 1807, in re Aldborough House:—

"Where once the billows roar'd along the strand  
Now far from billows spreads the thirsty land.  
There on a flat, in all the pride of taste,  
A pompous palace beautifies the waste.  
Without, an hundred mottoes deck the walls;  
Within, damps, shell work, and glass balls,  
Stodious of Architecture's art divine.  
Oh Folly! Stratford made this mansion thine.  
To scenes of mirth and fashion thence you roam,  
Abroad you revel, and but sleep at home.  
'Till noon thy swansdown couch sustains thy weight  
At rest, and rising fashionably late,  
Thy tedious toilet fifty slaves attend,  
But in one slave their various virtues blend.  
Officiousness! whose labours never cease  
In seeking thanks and finding but disgrace,  
Day's pleasures he resigns, and night's repose,  
Yet all his service reaps but taunts and blows."

"For several years after the giving up of the Feinaglian Institute, Aldborough House continued empty, save that a keeper was appointed. On the eve of the Monster Meeting of Clontarf (8th Oct., 1843), in the hey-day of O'Connell's popularity, the Castle authorities acquired possession of the old mansion, and filled it with a regiment or two of soldiers, as a precaution against an outbreak on the part of the Repealers, anticipated in consequence of a proclamation preventing the intended meeting. From that time until the present the old mansion has been in the hands of the authorities, and converted into all the purposes of an ordinary military barracks. More alterations continued to be made, and the interior is now sad to behold. The original fittings and ornamentations have nearly all disappeared. Outside, the old house has, of course, not changed in shape, though sadly altered in appearance. Over the entrance-porch of the main building the visitor may read in suik letters the motto 'Otium cum Dignitate.' Alas! there is little ease or dignity without or within, for all is din, drum, drill, and dilapidation. One of the urns which ornamented the top is gone, and one of the eagle's wings which stood at the corner has also disappeared. Faintly visible still are the black letters painted at either side under the cornice which read 'Feinaglian Institute.' In the rear of the old mansion the low flat bottom which was once a garden is now a common, a portion of it being fenced off where some of the soldiers do a little at kitchen gardening. One of the out-houses is used as a bake-house, and I understand between 5,000 and 6,000 lbs. of bread are made here daily, for the use of the soldiers. Within the walls flanking Lower Novo Noster-street there are cattle sheds, sheep pens, and meat-house, and on the opposite side a ball alley. On the common and along the outpost stations, goats, spaniels, dogs, and other animals are well tended. What a curious anticlimax to thy dreams, oh, Stratford, eight-and-seventy years ago!

"This portion of the street here between Ruckingham-street and the entrance to the Straud was several feet lower than at present, but about the years 1840-2 it was filled up. It was for many years in wet weather a regular swamp, in which you would at times have difficulty in avoiding being up to your knees in sludge. The ground here on the opposite side of the street (facing the barrack wall) was waste for many years, but has not long since been built upon. This range of two-storey houses are built upon a 'shoot.' A number of these were built by the late Mr. Michael Dunne, a much respected builder. That is a freehold (?) belonging to a squatter proprietor, there on the angle between Amiens-street and Lower Novo Noster-street. They say he is an eccentric character, albeit he is also a shrewd one. Many proprietors in Ireland have got their land by conquest, but Monsieur is able to plead undisturbed possession for many years, and can puff the Statute of Limitations to the winds. Pshaw! money is no object to a man who has built a Temple of Fame for himself. What is a paltry £100 to a professor of music and fencing, a carpet-beater, window-cleaner, and Jack-of-all-trades? I am unable to say whether Mossu has any French blood in his veins; the probability is, that he has, from the number of times he has taken 'French

leave' in adapting himself to the fashion of the times.

"I do not know at present who was the builder of the queer compo'd range of houses between Jutland-street and Ruckingham-street (Novo Noster-terrace). For the last forty years they have had intermittent attacks of *delirium tremens*, which seemed to shake them to pieces. They have been plastered, puttied, and tightened up about a hundred times, but they have an irresistible desire to move without their owner's permission. The Corinthian columns in front are models of Grecian symmetry, being composed of deal scantling and broken brick. Asthmatic people live for a long time, and so, I believe, do houses that are periodically doctored up.

"The school-house at the corner of Jutland-street was formerly known as 'Lady Harberton's School.' St. Thomas's Female School, formerly in Gandon-street, was recently removed to this building. The building was erected in 1825, and some time since remodelled.

"That building above there, sir, called the 'Carpenters' Asylum,' was a good intention, but it was never carried out. The trade could, if they willed it, have raised sufficient funds from among its members to have established an asylum for the decayed members of their craft, and it is a reflection upon their body that they have neglected to do so. Other trade bodies have done the same. The building is merely used for trade or friendly society meetings; and I am sorry to say that the house is in a very neglected condition.

"That granite-faced building, with columns, on the opposite side, belonging to the Presbyterian body, was opened in 1846. It long stood alone, and had no companion, ecclesiastic or domestic, to keep it company on that side of the street.

"The site occupied by Messrs. W. H. Smith and Son and Mr. Christopher Lavender is, like the rest, filled-up ground. It was, indeed, for many years, 'To Let' as building ground, in my memory as well as yours, Mr. O'Flanagan. The owner of the ground, in anticipation, had constructed the coal vaults in a line with the street; and between forty and fifty years ago these vaults were taken possession of by a colony of sweeps and tinkers, who held undisturbed possession for years. Many a free fight has been witnessed between them when one intruded on the freehold of the other. They were rooted out at last, but not without some difficulty and a little compensation. The whole of the ground near about here was formerly used as a scavenge shoot by the old Paving Board, and in excavating for the foundation of Messrs. Smith and Son's workshops, several feet of "made-up" soil had to be gone through. These new erections of Messrs. Smith and Son have been put by Mr. W. Hughes, builder, of Talbot-street, and are used for purposes in connection with their newspaper and railway book-stall enterprise. It is hardly necessary to say that the tile and terra-cotta store here belongs to Mr. Lavender, known for many years in Grafton-street. The Female Penitents' Retreat was formerly for many years in Lower Gandon-street, but was removed here a few years ago. This large brick building was built specially for the purpose of the Retreat by the late John Bourke, the architect of the Mater Misericordiae Hospital. The plot of ground on the east of the Presbyterian Church is used at present as a stone-cutter's yard. Here the Portland stones are being worked for Sir Arthur Guinness's new mansion at St. Anne's, Dollymount. I believe Mr. Fuller is the architect, and our old-established builder, Mr. Thomas Millard, the contractor.

"Let us move on. No. 106, the house there with the gate-entrance underneath, has been for many years (30 at least) occupied by Messrs. Farrell and Sons, and behind is the sculptors' studio. The brothers Farrell have executed several creditable works of art, and this city has statues by which their names will be remembered. Thomas Farrell lives still here, but the brother Michael has been



dead for some time. Their premises were first established in Gandon-street. The fate of Irish sculptors has often been a hard one, and some of them had reason to curse the ingratitude of their countrymen.

"As I have already remarked, on our former visit, the improvements, on the whole, are small, though the changes are many in Novo-Noster-street. I have told you the names of the principal residents at the latter end of the last century and in the early years of the present. I will now endeavour to recall a few more names who lived here at a later late.

"Between forty and fifty years since, or say about 1830, this street continued to be the residence of several distinguished families. The Hon. Mrs. Preston lived at 14; Mr. N. J. O'Neil and John O'Neil lived at 9 in the lower street. The former was president in the postal department of the General Penny Post Office; and his brother, P. C. O'Neil, also held an appointment. Both were discharged from the service in 1827, through the representations of Sir Edward S. Lees, a brother of Sir Harcourt Lees. Shortly afterwards, Sir Edward H. Lees, the Secretary of the General Post Office Department, was removed and transferred to Edinburgh, owing to an enquiry held at the instance of the Government. General mismanagement and much abuse were found to exist. P. C. O'Neil was the author of a startling pamphlet, addressed to the Right Hon. Lord Melbourne, entitled: 'A Brief Review of the Irish Post Office from 1784 to 1831, when Sir Edward Lees was removed from that Establishment.' The Lees were attacked unsparingly in this brochure, and monstrous abuse, embezzlement, and letter-opening, were proved to have existed. The pamphlet is now very scarce.

"Captain Jones lived at 8, and Captain George Faulkener lived at 20 in the lower street. John Cash, jun., son of Alderman Cash, of Rutland-square, lived at 36. The elder Cash was a civic worthy of some renown, and had a fine collection of paintings and pictures. Sir Richard Morrison and his son, William Vitruvius Morrison, architects to the University, lived at 10 in the upper street. The son died in 1838, at his father's residence near Bray, but the father lived for some years later. Both designed many castellated mansions through Ireland. Had the younger Morrison lived he would have reached the head of his profession, and would have far exceeded Sir Richard, his father, in boldness and originality. Sir Richard was descended from a family of architects, his father and grandfather having been in the line, and known for long years at Middleton, County Cork. Richard Morrison (afterwards Sir Richard) came to Dublin and settled here about the year 1800. He was a pupil of James Gandon, the architect of many of our beautiful buildings. Richard Morrison was the author of a work on his profession, illustrated with plans and ornamental designs, with a short sketch of the rise of architecture, published in Dublin at the end of the last century, and he was the contributor of a paper to the *Anthologia Hibernica* on the Giants' Causeway. In 1830, John Chesney, an architect and artist, lived in the neighbourhood, at 5 Washington-street, Aldborough-place.

"Lawyers continued to reside here. Edward Anderson, before mentioned, was still in this street, at 30, at the latter date. B. Baker, Edward Daly, at 5 in the upper, and B. Digby at 8 in the lower street; G. Dillon at 42, M. Fallon at 2 in the upper street. Sir Geo. Ralph Fetherstone, Bart., M.P. for Longford, lived at 21, W. C. McDermott at 40 in the upper street, and G. Roe and T. T. Simpson at 27 and 2 in the lower street. There were several other barristers, among whom were R. C. Walker at 6 in the upper street; R. Walsh at 5, John J. White at 4, and T. T. White at 34. D'Courcy Ridge, Commissioner of Affidavits for the Queen's County, lived at 5 Novo Noster-place, James Templetown, Master Extraordinary in Chancery, and Commissioner for Affidavits in the King's County, lived at the same place.

"Some of the physicians and surgeons I

mentioned in our former visit were still residing in Novo Noster-place in 1830, and for some years subsequent Dr. Sam Litton, at 10 in the lower street; W. S. Morgan, Censor, at 28; John Mollen, Licentiate, at 32, upper; Surgeon J. Ball lived at 24 in the lower; William Harty at 32; and Maurice Corr at 2. Catherine Conry kept a lace warehouse in this aristocratic quarter in 1830, at 41 in the upper street. This street and its offset were full of solicitors in the year mentioned, and even the not very reputable 'Diamond' had attorneys for its residents.

"I had hoped to be able to have given you some details of the 'Diamond' locality, and of some suppressed revelations of matters that took place in the vicinity; but I must defer it until another occasion. I forgot to mention that the well-known John Anster, LL.D., the eminent German scholar, lived for many years at 5 Lower Novo Noster-street. He was, as you are aware, Regius Professor of Law in Trinity College. His translation of Goethe's 'Faust' is the best published. Mr. Anster was a large contributor to periodical literature in the leading magazines, and to our own *Dublin University Magazine* in its palmy days. Mr. Anster was a native of Charleville, in Cork, where he was born in 1793. I must stop here."

The mists of evening beginning to fall, prudence dictated a return homewards, and, before parting, another appointment was made for a visit with the "Oldest Inhabitant."

## PUBLIC RIGHTS AND PUBLIC NUISANCES.

### THE TREATMENT OF SEWAGE, ETC.

#### ELEVENTH ARTICLE.

We spoke in our last article on the pollution of rivers, contaminated water supply, and other incidental abuses. We now purpose to deal at some length with the Sewage question, and the principal methods proposed for solving the difficulty, not only on public health grounds, but for economic ends and purposes. There is no denying that there are drawbacks in connection with all our present methods for dealing with sewage, but experience has been showing for some years past the practical advantages of some systems over others. Any method of treatment that will secure a large amount of fertilizing material for the land at a moderate cost, while leading to the improvement of the public health, by good sewerage, drainage, and the purification of rivers, such system calls for approval. As a starting point, it must be clearly understood that sewage in any shape cannot be permitted to pass into rivers. The attempts hitherto made to prepare solid manure out of sewage, either by straining off the suspended matters, or precipitating these, together with certain of the dissolved substances by means of other substances, and then letting the so-far purified water into the stream, have not been successful. The method is inefficient for the purpose on all points, but particularly from an economical and sanitary point of view. The valuable materials are not utilised by this method, and in several of these processes of precipitation valuable materials contained in the substances added are in a great portion lost, or worthless materials added in such quantity that the manure secured is of very little value indeed. On the other hand, the water that is allowed to run into the river will be found to contain a far greater part of the soluble matters of the sewage. This effluent water, as we may call it, is not free from dangerous polluting properties that the sewage possessed in its original conditions.

Chemical or mechanical methods, or both combined, have not succeeded as to render sewage sufficiently pure to be turned into water-courses which have to be used for the supply of water for domestic purposes, and it remains then either to filter it through some large mass of porous material, or to turn it on the land and use it directly as manure.

The last-named method has been employed in several districts for a considerable time, and, where properly conducted, has been found to answer well; and the former method is coming into more prominent notice. Both the filtration and irrigation methods have much in their favour, and, where worked in conjunction on a large scale and with efficiency, they will be found successful.

The filtration systems, through Dr. Frankland's experiments, have been brought prominently under public notice, and in the First Report of the Rivers Pollution Commissioners some of the results will be found. It is shown that if sewage be passed downwards through filter beds of sand or soil of various kinds, the process being conducted intermittently, it is satisfactorily purified. It was found, moreover, that the nitrogen which existed in the original sewage, either in organic matter or as ammonia, was found in the effluent water in the form of nitrates and nitrites—that is to say, that oxidation took place during the passage through the filter. It was also shown that the process of upward filtration through the same materials did not cause like purification. Filtration, then, to be successful, depends upon its being downward and intermittent, ample time being left for the introduction of air into the pores of the filtering material to secure the oxidation of the organic matter and ammonia contained in the sewage. This plan has been tried on an extensive scale at Merthyr Tydfil on an area of 20 acres, laid out in square beds, and pipe-drained at a depth of about seven feet, so as to be used as a filtering bed. It is composed of a deep bed of gravel (possibly the former bed of the river Toff), consisting of rounded pebbles of the old red sandstone and coal measure formation, interspersed with some loam and beds of sand, forming an extremely porous deposit, and having a vegetable mould on its surface. The sewage, before being turned into the filtering bed, is screened through a bed of slag, which arrests the coarser matter. It is applied to the land intermittently, for, the area being divided into four plots or beds, it is turned on to each one for 6 hours at a time, leaving an interval of 18 hours for rest. The surface land was cultivated to a depth of from 16 to 18 inches, and laid up on ridges, in order that the sewage might run down the furrows, while the ridges were planted with cabbage and other vegetables.

In the Fourth Report of the British Association Sewage Committee, read at Brighton in 1872, further particulars will be found in relation to the Merthyr Tydfil plan. It will be seen by the above description that the surface of the filtering bed has been turned into a sewage farm. The examination of this process carried out by the Rivers Pollution Commissioners and the British Association Committee show satisfactory results, so far as the purification of the dilute sewage is concerned, and it is thought that this is all that can be expected from the process. The planting of the surface of the filtering beds with vegetables assists in the purification of the sewage, and although not a process for the utilization of the manure, it is an important consideration, as the manure is not altogether wasted. The results of analyses by the British Association Committee show that the effluent water from the filters contains chiefly nitrates and nitrites, the same amount of nitrogen that the original sewage had in solution as organic nitrogen and ammonia, so that the amount retained by the filtering beds and by the crops is put down as approximately equal to the amount contained in the suspended matter of the sewage. It is also stated that during the winter the purification was more efficient than during the summer, but that even during the summer four-fifths of the nitrogen in the effluent water was in the form of nitrates and nitrites.

If sewage can be satisfactorily purified by being passed through the soil, and the effluent water is sufficiently pure to be allowed to pass into the water-courses, it is



clear the greater the extension of the area of the soil the greater will be the chance of perfect purification.

It will be essential, however, that the sewage passes through the soil, and not merely over it, and when the natural drainage of the land is insufficient artificial drainage must be resorted to. This will be necessary to secure the soil from being saturated with too much water. It has been found necessary in some cases for filter beds to be aerated to secure a satisfactory purification of the water. Irrigation farms, therefore, fulfill their conditions when they are neither more nor less than filter beds on a very large scale. Several farms have been laid out on what has been called the "saturation principle," not being underdrained. The sewage is turned on the land at the highest point, and allowed to flow downwards by gravitation over the surface, which it can only do when it has sufficiently saturated to a certain depth the soil with which it first comes in contact. Under favourable conditions, with a sufficiently luxuriant vegetation, the effluent water in these cases may be satisfactorily purified, but at other times, and more particularly in the winter, when growth is at a minimum, it will be found that the effluent water from farms constructed on the saturation principle will be little better than diluted sewage.

The Third Report of the British Association gives an instance in which the water which had passed over one field was actually rendered more impure, as regards the amount of organic matter and total solid constituents it contained by passage over a second field. The principle of filtration through aerated soil is entirely given up by this saturation plan, and the sewage farm is, for the time being, converted into an area saturated with foul water, dependant for its purification being placed entirely on the amount of vegetable growth. The purification effected where sewage is passed through a sufficient depth of soil into drains is as great in the winter without the aid of vegetation as in the summer with it. This, at least, has been found to be the case in the instance of one noted sewage farm in the sister kingdom. It has been satisfactorily shown, on the other hand, that purification is only very partially effected in winter when the sewage is not made to pass through the soil. If not originally so, the soil ought to be made porous with the aid of ashes and other dressings. The Third Report, already alluded to, remarks—"If drainage is necessary where no water is artificially supplied to the soil, it cannot be less necessary after an addition to the rainfall of 100 to 200 per cent."

We shall continue the treatment of Sewage and other attendant matters in our next, and will probably furnish some early instances in this and other countries of systems of irrigation by "flooding" and "warping," for comparison with those now advocated on sanitary and other grounds.

#### LIFFIANA.

In the Corporation on Monday last the following resolution, proposed by Mr. Murphy, and seconded by Mr. McDermott, was carried:—

"That the Orders of the Council of the 19th October, 1870, and the 15th of March, 1872, appointing the several officers of the Main Drainage Committee, and of the several salaries, and increase of salaries, of the said officers, as specified in the said Orders, be rescinded; and that all such salaries incidental to the scheme called the Main Drainage Scheme, be stopped from and after the passing of this resolution."

In re Mr. Warren's plan of purification, the Town Clerk read a letter from the Public Health Committee, approving of a plan submitted by Mr. G. P. Warren, T.C., for the abatement of the Liffey nuisance. It involved tidal gates west of the King's Bridge. On the motion of Alderman Redmond, seconded by Mr. Murphy, the plan was referred to a committee of the whole house.

In the matter of Sir John Arnott's (*i.e.*, Mr. R. Walker's) plan, a letter was read from Mr. Proud, Secretary to the Port and Docks Board, enclosing a copy of a report of their engineer, Mr. B. B. Stoney, disapproving of the plan for the purification of the Liffey suggested by Sir John Arnott. Mr. Stoney, in his report, observed that if the project of Mr. Walker were carried out it would stop the present steam navigation above the bridges. Three still-water reaches, each of more than 2,000 feet in length, would be formed during several hours of each day. In summer weather those reaches would be charged with sewage which, in place of flowing seawards, as at present at ebb tide, would deposit matter in the bed of the river and fore-shore, raising the latter, and generating foul gases. The fluid sewage retained by the weirs would be carried higher up the river by the returning flood tide, thus aggravating the evil. From 25 to 30 millions of gallons of mixed water and sewage which now scoured the lower part of the river daily, and helped to flush it out at ebb tide, would be ponded up, and a consequent deposit of sewage mud might be expected. He knew of no practical remedy for the present polluted state of the river than intercepting sewers. These had been tried elsewhere with success, and there was nothing in the condition of the Liffey to render it an exceptional case or demand different treatment.

The Hon. J. P. Vereker said a majority of the house were in favour of Sir John Arnott's plan, but every possible opposition was given to it by the gentlemen representing the Main Drainage Committee.

The motion for the insertion of the letter and report was then passed.

A letter was received from Mr. Robert Walker, architect and engineer, of 17 South Mall, Cork, offering to attend in Dublin and give drawings and explanations in relation to the report of Mr. Stoney upon Sir John Arnott's proposal to abate the Liffey nuisance.

Another letter was received from Mr. Proud, secretary to the Port and Docks Board, forwarding, for the information of the Council, a further report by their engineer, Mr. B. B. Stoney, containing his views on a number of schemes for abating the Liffey nuisance, which had been referred to him by the board. These documents were referred to a committee of the whole house.

Mr. H. O'Hara, C.E., again urges his scheme for the purification of the Liffey on the attention of the Corporate authorities and the public. As a contribution to the history of the schemes proposed for the abatement of the Liffey nuisance, it may be included in "Liffiana." The general features of the plan as described by the proposer consist:—

To lay short lines of water-pipes underground, at various points between James's-street Harbour and the Ringsend Docks, from the Grand Canal to the nearest main sewers on the south side of the city, and the same at various points between the Broadstone and the Spencer Dock, from the Royal Canal to the nearest main sewers on the north side. These pipes will average not more than a few perches each in length, as the Circular-road and the canals are tolerably parallel, and near each other. There will be no machinery of any kind connected with the pipes, except a valve at the canal end, which can be opened or shut by the several lock-keepers along each line. When the valves are opened, about three and a-half hours before the time of low water, the flow of water will enter the sewers, and circulating through all of them, will fall into the river in cascades.

To diminish, as far as practicable, the admission of solid matter to the river. That can be effected by soliciting the co-operation of the police, and making it a punishable offence to throw house or market refuse into the river. Also by requesting the attention of the proper authorities to the sanitary arrangements of the Royal Barracks, and by compelling the owners of manufactories to pass their waste liquids through wire strainers fitted in the sewers leading from their premises.

To supply distilleries and other establishments, where hot water is a waste product, with a stream of cold water sufficient in amount to lower, at the time of its discharge, the warm fluid to the tem-

perature of the air, as heat liberates the most poisonous gases.

To prevent the reception of solid matter by the tributaries which join the Liffey within the municipal boundary. The tributaries are the river Cammack and the river Poddle. The former receives house dust and refuse of every kind in passing through Old Kilmainham and Bow Bridge, which it carries down and discharges into the Liffey at the King's Bridge and Watling-street. The latter is open to the street, at Pinlicko, and should be arched over. It enters the Liffey at Wellington-quay. The pollution of the tributaries by solid matter may be lessened by covering the river Poddle at the place indicated, and by police regulations applied at Bow Bridge and Old Kilmainham.

To level the shore bed between the King's Bridge and Carlisle Bridge, so that the stream at low water may flow uniformly over the surface, and allow the current and the tides to exert increased frictional force by passing over a clean pebbly bed.

The advantages of this plan are:—1st. That the nuisance will be at once and for ever abated, at a comparatively small expenditure. 2nd. That the cleansing action of the water will extend to the drains, and prevent the accumulation of solid matter in the sewers and river bed. 3rd. That the navigation and fisheries will be much improved, and will continue to improve as long as it is in operation."

We are afraid that Mr. O'Hara overlooked some important considerations essential to the success of any plan; but, as there seems so little chance of our civic magnates adopting his plan, it is scarcely necessary for us to enter into the question. We may venture to say, however, that the adoption of Mr. O'Hara's plan would afford but small relief, and the Liffey would still continue to be polluted.

#### THE BRITISH ARCHÆOLOGICAL ASSOCIATION AT BRISTOL.

THE Congress at Bristol, alluded to in our last, opened most favourably with greetings and hospitalities. The first visit was made to the historic Church of St. Mary Redcliffe, when a party of the members and visitors were conducted over the building by Mr. George Godwin. This church has lately been and is at present, we believe, under restoration, according to the directions of the architect named. Mr. Godwin gave to the party a brief history of the past of the building, its monuments, memorable persons, and associations from the earliest times, and concluded with a description of the work of restoration. The narrative was a very interesting one. At the conclusion of the discourse, Mr. J. R. Planché (*Somerset Herald*) made some remarks, agreeing with Mr. Godwin in some points described. The Temple Church, Cunynge's House, and other parts of ancient Bristol were next visited under the guidance of Messrs. Taylor and Nicholls. The inaugural dinner given by the President, Mr. Kirkman Hodgson, M.P., was well attended. Among the speakers were the Mayor of Bristol, Mr. R. N. Phillips, Prebendary Scarth, Mr. Gordon Hills, Mr. Edward Roberts and Mr. Mervyn King.

The first excursion was made on Wednesday, the 5th. The comparatively unknown Church of Clapton-in-Gordano, the camp at Cadbury, the Church and Manor House at Tickenham, and Nailsea Church were announced in the programme, and the way thither was over the Suspension Bridge at Clifton, and thence by a pleasant and picturesque road to Portway, where Mr. Nicholls pointed out a small camp crowning the eminence, and the round tower belonging to a small hospital of the Knights of St. John of Jerusalem! Barely two miles from hence was the Church of Clapton, rising grim and grey on an eminence by a tall hill side. On the western side of the eminence was a fortified tower attached to a manor house, with some old farm buildings adjoining. The Church of Clapton was evidently an edifice dating from the twelfth century, but there were examples of later date. The peculiar name of the church and parish was derived from Almeric de Gardein, a Norman follower of the Conqueror, who received a grant of land in this



Architectural drawing of a building facade. The drawing shows a central rectangular section with a width of 39' and a height of 9'. To the left of this section is a series of vertical elements, possibly columns or windows, with dimensions 10' 3", 2' 2", 3' 6", 2' 0", and 4' 11" indicated. The top of the drawing shows a series of horizontal lines representing the roofline, with a dimension of 3' 4" indicated. The drawing is a technical sketch, likely for a construction plan or elevation.

• ELEVATION.

The walls are at present covered with daubing

Arthur Price 132 Alfred.  
Died at sea. 1873-74



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locality. The church had an angelus bell of silver, bearing the somewhat strange inscription, "Signus cessandis et servis clamo cibandis," which the Rev. Prebendary Scarth said might be freely translated, "I call the men to work, and when they go to dinner." The super altar had some singular capitals inverted so as to form the base of the shafts. The roof, of the 15th century, was in a good state of repair. Some interest was excited by an uninscribed altar-tomb in a chantry chapel which was thought to have been an Easter altar, but this was doubted. A large mural monument to one of the Winters was remarkable for the quaintness of its devices. Another monument (an inscribed stone) to the memory of a Bridget Winter, who died in 1640, bore the following singular lines:—

"Thy rest gives me a restless life,  
In that though wast a matchless wife,  
But yet I rest, and hope to see  
The day of doome, and then see thee."

In this chapel there was a hagiostyle which formed also a piscina, an arrangement so singular as to attract general attention; the old seats, Jacobean candlesticks, rood loft staircase, in which human bones were found when the door was unbricked some years ago. The rector pointed out that near the side of the present font an ancient sepulture was found, but the figure fell to dust when exposed to the air. The arms of Arthur and Berkeley were impaled on some shields in the church, and these intermarried with the Winters. The old manor house was ascribed to the time of Edward II., and the tower to 1446. The adjacent farm buildings were of Jacobean era, and presented some picturesque details. Cadbury Camp was next visited, and a large number of visitors climbed the heights on foot. The camp is situated on the summit of a lofty hill which commanded views of the Severn and the Mendip Hills. The entrenchment enclosed an area of 7 acres 1 rood and 28 poles, and is 594 yards by 561. The entrances were to the north. There was a double valla and a double ditch, and of these Mr. Grover gave a description. There seemed to be a mode of defending the entrances by transverse ramparts. Subsequently, Mr. Grover delivered an interesting lecture on early British settlements and fortifications, but his deductions were open to serious objections, as he made these hills the battle ground of Caractacus. Some fine effigies of the Berkeleys in Tickenham, belonging to the early part of the 14th century, were much admired, but no attempt was made to describe the chain armour, sleeveless surcoats, and beaten shields of these old warriors. Some discussion arose as to whether the circular chancel arch was Norman or Saxon work. Mr. George Godwin was of opinion that it might belong to what is known as the Saxon period. Some carved work on one of the southern piers, apparently made to receive a canopy, a stoup in the chancel, and the base of the church-yard cross exhausted apparently the archaeological objects within this strange church. The stile leading to the road was, however, found to have been originally the upper part of an altar tomb. The great interest of Tickenham centered in the remains of the old manor house adjoining the church, for the proportions of the old hall, with its richly-decorated corbel stones, excellent tracery, and treble doorway for kitchen and buttery, gave an excellent idea of a dining-hall at the early part of the 15th century, when Henry of Bolingbroke became King. The oriel solar withdrawing-room completed the plan of this old house, of which but little is known. Mr. E. Roberts gave a brief description of mediæval houses, and compared them with the example before the association. At Nailsea, where the party lunched, Mr. Grover extended his remarks on the camps in the neighbourhood, and the party then proceeded to Nailsea Church, a restored specimen of a Perpendicular church of the Somersetshire type, notable only for a good stone pulpit and a peculiar arrangement of the piers to carry the rood loft. A stump of a 13th century cross in the chancel

seemed the only early specimen in the church. A water-drain, similar to the one at Clapton, was observed in the hagiostyle.

Other places of note were visited on the following days, of which we may give some particulars in our next.

### OUR NATIONAL MONUMENTS.

THE conservation of our National Monuments is a matter not only of historic but of architectural importance, and we have on sundry occasions discussed the question in many of its bearings. The Rev. James Graves, A.B., M.R.I.A., hon. secretary to the Royal Historical and Archaeological Association of Ireland, has felt it necessary to speak plainly in respect of the work attempted at the Rock of Cashel. That Mr. Graves's protest may be fully understood, we quote from the proceedings of the late session the question put by Mr. Mitchell Henry and the answer given by the Chief Secretary for Ireland:—

Mr. Mitchell Henry—I wish to ask the Chief Secretary for Ireland whether it is the intention of the Board of Works in Ireland to carry on repairs of the national monuments, for which funds have been vested in them under the 25th and 26th sections of the Irish Church Act, without obtaining the assistance of an inspector specially skilled in the ancient architecture of Ireland? I ask this question at the request of some of the first archaeologists of Ireland, who have been shocked at finding the erection of walls round the Rock of Cashel, and other acts of Vandalism.

Sir M. H. Beach—I am informed that the Board of Works in Ireland consider that their duties in reference to the national monuments are confined to their preservation and not to their restoration. If at any time circumstances were to arise which would render it necessary to call in the advice of inspectors skilled in the ancient architecture of Ireland, I have no doubt they would feel it their duty to do so.

Commenting on the above, Mr. Graves observes:—

I could scarcely believe my eyes when I read Sir M. H. Beach's reply to Mr. Mitchell Henry's question relative to the non-appointment by the Board of Public Works of a properly qualified inspector to direct the works of conservation of those ancient ecclesiastical remains which are made, or to be made, "National Monuments," under the 25th section of the Irish Church Act. The Irish Secretary stated that no such inspector was needed, as it is not the intention of the board to restore any of the ancient buildings vested in them as "National Monuments." Now, I visited Cashel, the only building as yet actually vested in the board, in the middle of last June, and found a very intelligent clerk of works, and a large staff of operatives, in possession of "the Rock." Mr. Reade, the clerk of works, kindly gave me every information as to the proposed operations, and I found that besides the works of simple conservation it was intended to restore—

1. The bishop's palace or castle.
2. The vicar's hall.
3. The east window of the cathedral.
4. The buttresses of the cathedral.
5. The battlements of the cathedral.
6. The enclosing wall of the Rock.

Now, if this is not restoration I do not know the meaning of the word! I have had some experience in the conservation of ancient buildings myself, and I feel persuaded that incalculable injury may be done, even in works of simple preservation, unless the workmen are placed under the constant supervision of some one perfectly acquainted with the characteristic features of the various styles in which our ancient churches were built. When it comes, however, to restorations such as those which are in progress, or contemplated, at the Rock of Cashel, the unremitting oversight of a properly-qualified inspector is absolutely necessary, if the character and authenticity of our "National Monuments" are to be preserved.

And in a subsequent communication the reverend gentleman remarks:—

When Lords Enniskillen and Talbot de Malahide, Bishop Graves, Sir William Wilde, Doctor Stokes, and a host of other men of note for their knowledge of our national antiquities concur in recommending an appointment which they think needed for the efficient preservation of our National Monuments, surely the Board of Works will not persist in the

untenable line of action announced by their spokesman in Parliament. If they are so ill advised and so ignorant or careless of intelligent public opinion as to do so, it only remains for Irishmen of all parties and classes to unite in an appeal to a higher authority, and that at once, before irreparable mischief is done. The surplus of the property of the Irish Church had but one lien placed upon it by the Act of Disestablishment, and that was the preservation, as National Monuments, of the most important of our ancient ecclesiastical remains; and surely no Irishman will be found to object to the expenditure necessary for the proper administration of the trust thus handed over to the Board of Public Works in Ireland, especially as it involves no call on the revenue of the country, and needs not the assent of that proverbially close-handed Minister, the Chancellor of the Exchequer.

We fully endorse the above sentiments, and would respectfully refer the Chief Secretary to the opinions he expressed in Parliament. The time and the circumstances have arisen which render it absolutely necessary that a properly qualified inspector, "skilled in the ancient architecture of Ireland," should be appointed.

### THE DUBLIN SCHOOL OF ART.

WE noticed with pleasure on former occasions the marked improvement that had taken place of late years in the conduct and teaching in the Royal Dublin Society's School of Art. None can deny but that much is owing to the efficiency of the present Head Master, Mr. Robert Edwin Lyne. His ten years' labours have been fruitful of several clever pupils who are now practising their art abroad as well as at home. Our only regret is that the artizan classes of this city have not taken advantage of the facilities offered to them, and availed themselves of the instructions within their reach for several years past. They will regret it when too late to remedy the losses their neglect has brought them. Drawing, to nearly all classes of artizans, is almost as necessary as writing; and an operative can never be pronounced skilled or technically educated if he has no knowledge of drawing. To operatives of the building trades particularly, the acquisition is most valuable, if they aim to become clever foremen or clerks of works. The following address to the Head Master may be allowed to speak for itself, and we may add we publish it with pleasure:—

RESPECTED AND DEAR SIR,—Upon the occasion of your having completed the tenth year of your labours amongst us, as Head Master of the School of Art of the Royal Dublin Society, we, the students, beg to offer you the present address, expressing the high appreciation we entertain of the services which you have rendered to art education in Ireland, and of the many advantages which we have enjoyed as your pupils; and we beg to congratulate you on the success which has attended your endeavours to establish upon a sound foundation the art progress of this country. We desire to say how much we value the instruction which we have received from you during so many years, and how greatly we have been benefited by your teaching.

You have brought to bear upon your labours an energy fortified and disciplined by experience, and you have always enforced the necessity of distinguishing between the false and the true, thus leading us to value justly the really beautiful in art, and to appreciate more and more the harmonious combinations of nature. It is highly gratifying to us to have to recall the wide reputation which our art schools have achieved, and it must be a high satisfaction to you to remember that your efforts have so materially conduced to this result. It must also afford you much satisfaction to reflect upon the great number of your pupils who are now practising art, and exercising a salutary influence over a wide field both in this and other countries. They will always gratefully remember the instruction they have received in the Dublin School of Art.

Upon a former occasion we acknowledged the beneficial influence of your example, leading us to diligence and perseverance, and we now, in conclusion, desire to assure you of our sincere respect and lasting regard, and it is our earnest wish that you may long continue to labour in your present sphere of usefulness, and that we may thus enjoy the advantages for many years to come of your great experience and knowledge.—We remain, dear Sir, very faithfully yours, John T. Miles, James MacDonnell, Theodore Parkes. (On behalf of the Committee.)



## HOUSE ARCHITECTURE IN AMERICA.

THE Americans are fond of styling their country, in contrast to Europe, "The New Land," desiring by this designation to express, not only that the settlement of America by white men was comparatively recent, but also that the whole mode of life in America is fresh and vigorous compared with that of Europe, and that the constitution of the United States is far superior to the Governments of the European states founded in earlier times. To the American, therefore, "The New Land" appears the more perfect land, and this supposition is forced the more convincingly upon him, because in America the "new" is almost invariably considered better than the "old." In how far this idea is correct with respect to the construction of houses may be gleaned from the following remarks.

When a house is to be erected, the first thing to be done in America, as elsewhere, is to select a suitable site. Allotments of land for building purposes may be obtained in two ways—by purchase for ever, or on lease for 10 or 25 years. The style of the house to be built depends greatly upon the fact whether it be required only for 10 or 20 years or for a much longer period. Nor is its character less decisively influenced according as it is situate upon a farm, in a small country town, or in the more or less populous parts of a city.

The humblest demands are frequently satisfied by a structure which presents nothing more than four walls and a fire-place. Primitive houses, or rather huts, of this sort are in general constructed of wood, and are to be found not only in the forests and prairies of the "Far West," but also in every small or large city of the eastern states. Specimens of them, sometimes isolated and sometimes in considerable groups, may be seen in the upper part of New York. The causes which tend to the erection of these miserable huts may be easily explained. In all the large towns, many houses are pulled down a short time after their erection, and thus abundance of second-hand, but still serviceable, building material is provided. This material is bought cheap, and as a carpenter earning from two to three dollars daily will, in one, or at the most two, weeks construct one of these huts or "shanties," as they are technically termed, the cost of the whole structure does not exceed twenty or forty dollars. The only further expense then incurred by the new householder is a small ground-rent paid annually to the owner of the soil.

The advantages which this class of house-holders derive from this system are by no means inconsiderable. They are principally artisans and labourers, and although they can earn from eight to ten dollars weekly, yet there are every year periods of enforced idleness, frequently lasting for ten or twelve weeks. Then, those who have been improvident run the risk of being turned out upon the streets by their landlords. The ownership of a shanty protects them against such a misfortune. The rent, too, of a dwelling but slightly better would amount on an average to 30 or 40 dollars, and in New York to as much as 80 dollars per annum.

Economical persons easily earn the means of soon entering upon the possession of a more comfortable residence than that just described. Large or small building sites are daily offered for sale in or near all American towns, upon the most favourable conditions. The right of possession over such a piece of building-ground may be obtained by small weekly or monthly payments, and a frame house may at once be constructed upon it for a few hundred dollars. The work upon a frame house is principally done by carpenters, except when stones are convenient, when a stone basement storey, in which are situate the kitchen and an eating-room, is constructed. In this case, the real frame house is placed upon the walls.

The frame house in reality is composed of

a skeleton of wood-work, the various parts of which are sold ready-made. These materials are exceedingly light, and even the rafters, although they are generally 12 in. high, are only from 2 to 3½ in. broad. When the skeleton or frame-work is erected, the roof is shingled, the walls are coated with boards upon the outside, and door and window frames are fitted in. The carpenter's work is finished when the floors are laid down, and the completion of the work is then entrusted to the plasterer, who covers the scantlings and rafters upon the inside with thin laths, which are in their turn coated with plaster. The inside walls are thus left hollow, but, nevertheless, answer their purpose well, and offer the double advantage of being comparatively cheap to construct and easy to alter. A house of this kind may be completed within a few weeks, as all the materials necessary for the construction of buildings of every size and quality are sold ready-made.

Houses of greater pretensions are much longer and not unfrequently two storeys high, and contain not only a parlour, kitchen, and family bed-rooms, but also a dining-room, drawing-room, and spare rooms. The external pretensions of the house also rise with the increased internal accommodation. The boards covering the outside of the walls are carefully planed and fitted to each other, and sometimes even receive the form of cut sandstone. The roof, doors, and windows, are ornamented in various ways, and a verandah is frequently added. The pillars of the latter form a special feature of beauty in the building, especially when they are not square, as is usually the case, but belong to the Ionic or Doric orders. Some of these wooden houses are built in exact imitation of Greek Temples, and at a certain distance they may, from their white appearance, readily be mistaken for marble palaces by strangers in America. Almost every style of architecture is imitated with great skill and often with such success that one is quite perplexed when asked to decide at a certain distance whether, for example a Gothic church is built of wood or of stone. A correct decision is rendered still more difficult by the fact that the style of painting such buildings varies according to the order of architecture. A brown colour in imitation of the common brown sandstone is much esteemed. Wood and ironwork too are not unfrequently covered with a glutinous varnish upon which the dust of crushed stones is scattered, and thus genuine sandstone is successfully imitated.

Frame houses are very numerous in America, as they can be erected with great rapidity, and are exceedingly cheap in comparison to stone and mortar structures. Small country towns are often entirely composed of them, as also many of the younger cities of the West. Entire streets of these houses are still to be found in some of the rapidly-growing cities of the eastern states. It is these houses also which most frequently afford to the newly arrived European the singular spectacle of a "migrating house." Occasionally a street perfectly clear in the morning will be found almost entirely blocked up in the evening by a house several storeys high, which, resting upon rollers, is being removed by means of mechanical appliances from its former site to a new destination. During this alteration of position the furniture and other articles are left in their usual places, and in many cases even the inmates remain in the house. It is worthy of remark that even stone buildings, although much more rarely, successfully undergo similar alterations of site.

Frame houses are in general inhabited by one family only, as their liability to fire prevents their being constructed on a large scale. In rapidly-growing cities they are rendered impossible in time, because the value of the ground rises so high that the interest of the capital expended upon the purchase of a building site amounts to more than the rent of a frame house erected thereon. Therefore, there is nothing for the

owner but to submit to necessity and to erect a more solid building, with a corresponding profit in rent, upon his site. In most cases a "tenement house" is constructed, by which is understood a dwelling-house for several families. These tenement houses are so much alike, as well in their external appearance as in their inner arrangements, even in towns the most remote from each other, that one is involuntarily led to believe that they are all constructed upon one and the same model. Their object is to afford shelter to as many families as possible, in order to produce high rents. Isolated tenement houses have not a very attractive appearance, as they are exceedingly narrow and five or six storeys high. When, on the other hand, they are built in blocks, as is most frequently the case, they have a tame and barrack-like aspect.

The structure of these stone buildings is, upon the whole, almost as simple as that of the frame house, their external walls alone being massively built. The length of the tenement house exceeds the breadth almost by the double, and, consequently, as soon as the cellars are constructed, the building of the two long side walls begins. In spite of their great height, the thickness of their walls seldom exceeds two bricks, so that the narrow flues which are built in them project considerably. As the height of each successive storey is attained, the rafters are laid in their places. They are high and thin, and are placed about ten inches apart. Some rows of thin spars, running parallel with the side walls, are fastened across them in such a manner that they cannot bend. When the house has at length fully attained its destined height, its front and back walls are built up. Then follows the construction of the roof, which is, in modern buildings, generally quite flat. The usual roofing material is zinc, but in recent times a coating of asphalt has found much favour.

The interior walls of stone houses are constructed in the same simple manner as those of the frame houses. The outside walls are not directly plastered on the inside, but a framework of laths is erected in front of them, which is covered with plaster, and polished. In the space between the real wall and the frame work, the water and gas pipes are placed.

The visitor to a large tenement-house will find two dwellings upon each floor. Immediately upon entering the basement storey he will perceive two doors, one upon the right and the other upon the left, facing each other; somewhat further in is the common stair, and upon either side of the yard-door, which faces the street-door, is another couple of doors, also facing each other. The first-mentioned doors are those of the parlours, and the others those of the kitchens of the two dwellings situate upon the ground-floor of the house. A similar arrangement exists in all the upper storeys. On opening the parlour-door the visitor observes a room 4 or 5 yards long, and of a similar breadth. Generally the fire-place is placed opposite to the door, and framed in with wood, marble chimney-pieces being only found in higher-class houses. Upon either side of the fire-places are cupboards. Owing to the southern aspect of most American houses, the two windows admit such a flood of light into the room that the window-shutters are generally kept closed during the day. The shutters are perforated with numerous holes, and as soon as the windows are opened the air receives free admittance into the room. The windows consist of two halves, which are opened or closed by means of cords and pulleys. From the parlour the visitor passes through a couple of dark rooms into the kitchen, which serves at the same time as an eating-room and as the usual sitting-room of the family. Its arrangement is similar to that of the parlour.

Besides the use of the dwelling, the inmates of tenement-houses possess the right of drying their washings in the yard behind the house. For this purpose there is a convenient arrangement, consisting of an endless line



running from a roller placed under each kitchen window to another roller fastened to a tree planted in the yard. The various articles put out to dry can thus be hung out from the kitchen window, and taken in again in the same manner.

The rent of such dwellings in large towns varies from 10 to 20 dollars per month, according as they are situate in a lower or upper storey; so that the income derived from a five-storey tenement-house amounts to 1,000 or 1,800 dollars annually. The high rate of rents (which are continually rising) causes many families, especially in New York, to be content with two in place of four rooms. Thus four families frequently dwell in one storey, and sixteen or twenty in a house; so that a single tenement-house contains from seventy to eighty inmates. The front of the tenement-house is, like the rest of its walls, built of bricks; for the doors and window-frames roughly-hewn sandstone is employed. In self-contained houses, designed for the use of one family only, the front is constructed with great care; it is composed wholly of sandstone or marble, and adorned with innumerable architectonic ornaments.

The self-contained houses, like the tenement-houses, are very similar to each other in most respects. The usual entrance to a self-contained house is situate in the façade of the house, immediately under the stair leading to the hall-door, and is some feet lower than the street. This door admits to the basement storey, which contains besides a long narrow hall, an eating-room, upon the street side, and a kitchen at the back, with some dark rooms between. From the hall a stair leads to the upper storeys. The next storey contains the principal rooms of the house: facing the street is the front parlour, and immediately behind it, overlooking the yard, is the back parlour, both being connected with each other by a folding-door. The remaining floors contain a large room upon their street side, and a small one next the yard, with several dark rooms between. In all the rooms the chimney-pieces are constructed of marble, and frequently thousands of dollars are laid out in decorating, gilding, and painting. This lavish outlay, however, by no means guarantees that the decorations are tastefully arranged, or that they can lay claim to artistic merit. One convenience, however, which is constantly met with in these self-contained houses, deserves mention. A commodious bath-room is invariably situate in the second storey, and is supplied with pipes for hot and cold water.

The fireplace—an important object in the structure of American houses—remains to be considered. It is an old custom in America to keep a grate-fire always burning. There is no difficulty in doing this in districts where firewood is abundant; but with the increasing cost of fuel the necessity for economy in this respect was felt. In large towns, where fuel is always scarce, grate-fires are burned only in the houses of wealthy people, whilst others employ round iron stoves, placed in front of the chimney. In large shops, and in many private houses, the rooms are heated by pipes, which conduct the warm air generated by a large stove on the basement floor through the upper storeys. In rented houses the stoves are not the property of the landlord but of the tenant.

The rooms and houses are, in general, fitted out in the same uniform manner in which they are built. In the most distinct dwellings one finds almost the same furniture often arranged in the same manner. In good tenement-houses the floors are generally covered with thick oilcloth. In many cases the kitchen is the favourite family-room, and is also laid with oilcloth, whilst the parlour, and perhaps the bedroom floors, are covered with carpets. The furniture of the rooms is simple. The kitchen furniture is chiefly made of deal, and consists of a couple of tables, some chairs, a rocking-chair or two, and a large table-shaped stove; a clock is never wanting over the chimney-piece, nor a mirror between the windows. The parlour is similar, only that its furniture must be made of black

walnut. Should this, however, be too costly for the resources of the householder, the furniture is made of deal, and polished in imitation of walnut. In America no one must be behind his neighbour, and those who cannot afford the genuine article are content with the imitation. In numerous other cases this desire to preserve appearances may be observed, and "imitation articles" play a truly important part in American life.

First-class tenement-houses are distinguished by their neatness and cleanliness from those which are crowded with a large number of families, and in which the floor-covering is limited to a small piece of oilcloth spread in front of the stoves. These second-class tenement-houses, which are most numerous in large towns, are principally occupied by newly-arrived immigrants. The real American, unless in very reduced circumstances, avoids them as much as possible.

From the above remarks the reader will have probably gathered an idea of the advantages and disadvantages presented by American houses. To the tenement-houses no small inconveniences are attached, as for example, the narrowness of the space and the want of light and air in the rooms. The latter evil is remedied by opening the doors and windows, but this exposes the inmates to violent draughts. The advantages of the tenement-house belong entirely to the landlord, and lie alone in the fact of deriving the greatest gain from the smallest possible space. These disadvantages are not felt in self-contained houses, as in them there is ample space, and the dark rooms are seldom used as bed-rooms. The light construction of the interior of all houses is also highly dangerous in case of fire, which makes such rapid progress that it is often very difficult for the inmates of the upper storeys to make their escape by the roof. It must be confessed, however, that their buildings, like other American undertakings, certainly fulfil their design.

H. A.

### TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville.*

HAVING the distinguished honour to be a sort of roving correspondent to the IRISH BUILDER, I naturally feel it incumbent upon me to keep up my erratic character as much as possible. I have gone north and south, east and west, and have not allowed the paltry consideration of tram fare to interfere with my metropolitan peregrinations in search of a text; but the question is now in what direction to proceed. Shall I saddle my Pegasus and trust to his wings for a subject? Pegasus! Alack! no. He would no more answer to my call than would the angel Gabriel; and, in any case, I could scarcely afford to keep a coh. I recollect there was an humbler and more familiar winged creature to whom, in my juvenile days, I appealed in this form of invocation—

"Goosey, goosey, gander,  
Whither shall I wander;  
Up stairs, down stairs,  
In my lady's chamber?"

Nay, that cannot be; the rhyme is manifestly as incorrect as it is indelicate, and, besides, any roving of such an exclusively domestic nature would soon become a weary pilgrimage, and one which I doubt if my editor would care to chronicle; and, furthermore, not possessing the profound belief in such flights of fancy as culminate in results similar to that which the other day befell the unfortunate De Groof, I dismissed the thoughts of winged wandering with its classical surroundings, and instead of taking counsel with the Muses and requesting the aid of Clio, or some equally antiquated old buffer, I demanded a "first-class return" from the booking-clerk at Westland-row, and started for Kingstown to "do" the regatta.

If Diogenes could behold the perfection to which aquatics have been brought, it is not at all improbable that he would follow the degraded forms of modern society, and determining to seek for "fresh fields and pastures new," discard his old and trusty friend the tub; and, not content with discarding it, would kick it into the hinder portion of the coming week, and probably, such would be the effect on the mind of the dear old gent, that he would bestow no more notice on that tub than does the blasé old clubster who reads these pages over his coffee at

"The Kildare-street" or a country cousin in Grafton-street, or a charity sermon in the Albert Chapel."

The "trim-built wherry" gracefully retires into oblivion before the "Varsity four," and Mr. T. Bowline betakes himself into the desirable obscurity of private life, ceding his position to the masterly care of the gentlemen Renfroths of Kingstown.

Kingstown at regatta time is infested with muscular-looking, flannel-clothed, canvas-shoed, straw-batted specimens of the human race, who puff their *La Maravillas* on the steps of the Harbour Boat Club, and chat confidentially with their "trainers" concerning the confounded "time" that "number two" keeps, or the degraded fancy that "number three" has for shell-fish; or else, with a slight change of toilette, lounge down the east pier to hear the string band's notion of "I Puritani" while doing the amiable to some prototype of the latest fashion plate of *The Milliner and Dressmakers' Journal*, who is husband-hunting under the guardianship of a dowager in elegant *fichu*. Those amateur mariners are not, however, the only salt-water fry that knock around. There is another class of boating men who pick up a precarious livelihood by letting pleasure boats to visitors. The habits of those men are curious in the extreme. Their clothing consists chiefly of a "gansey" and a chew of tobacco, and they drink on the slightest provocation, or without any provocation whatever. I noticed two of those brave fellows on the pier, and, being a student of human nature, was naturally anxious to observe their movements. Here, thought I, is the soul of Britain's brightest days. I am sick of slavish poverty on the one hand and callous poverty on the other. I yearn for the sound of language breathed from the lungs of honest independence, and the hearty greetings of poor but earnest and warm-hearted men. I thought this. What I saw and heard was different—slightly. It ran thus:—

"'Baccor," said maritime curiosity No. 1, and his eagle eye glanced seaward.

"Haint none," replied the interrogated marine monster.

Nothing wrong here, thinks I—"Brevity is the soul of wit." But I was wrong. The monster slowly dived his hands into his breeches pockets and scanned the horizon with an abstracted gaze. One hand then dissolved partnership with the pocket, and, with an anxious look upon his countenance, he drew his coat cuff across his mouth, when his hand returned to his pocket a chew of tobacco which was in his mouth, and the party who had no tobacco was none the wiser.

"The proper study of mankind is man."

The afternoon trains were heavily freighted, bringing plenty of flounced muslin and billycock hats to enliven the scene. Drinking, dancing, and pommelling became the order of the evening, and those who adjourned to the class of taverns where the public is allowed to "play plays" had altogether a very jolly time of it.

The railway arrangements were abominable, and gentlemen who had been engaged in preventing the destruction of tissue became masters of the situation. In the centre of the rather narrow platform twelve parties erected a pyramid by placing their heads together and keeping their feet far apart, in which elegant position they sang "The Green Flag," and then paraded around the enclosure, bonneting the passengers, and so on. I came in contact with one of those roughs, who produced for my sole edification a "pyrotechnic" display, which for cheapness, brilliancy, and effect, might have defied the rivalry of Mr. Lawrence. Several ladies fainted from the excessive heat, but, owing to the crush, could not enjoy themselves, and, therefore, gave up the hysterics, after several attempts proving abortive.

The condition of Killester churchyard (to which I some time ago called attention) is growing worse day by day. During the late warm weather the stench emitted from the open graves, exposed to the heat of the sun, was perfectly appalling; and it is not at all improbable, if proper steps are not speedily taken to abate the nuisance and prevent further interments, that the neighbourhood will shortly become uninhabitable.

History repeats itself, and so does the lax discipline of the local authorities. Poor mortality's usage is no better at Artane than at Killester—rather worse, in fact—showing us death in all its native horror, with nought to mask its unsightliness—nothing to lessen the blow.

Artane is the burial place of the poor, 'tis true; no storied urn or costly monument records the virtues of the departed, no such shaking hands of stark corruption and high-crested pride is here evident, no union of earth's wealth and earth's nothingness

\* The above is an allegory on the universal depravity of human nature.



marks the last resting-place of him who was but yesterday the despised tatterdemalion of the work-house, the offal of the human kind—at least he has tricked the trickster Fortune, and is in the illimitable country of the dead. And when we remember that by his being there he is equal to any of the line of Pharaoh, we might as well continue to keep up the social swindle and afford proper protection to his ashes, until the grave-worms have finished their task.

Overcrowding and open graves are not, however, the only subject for complaint at Artane; beautiful specimens of equine skeletons browse upon the little green mounds, and the canine tribe of the adjoining village evidently regard the churchyard as a rather good thing in luncheon-bars, nor is any attempt made to exclude such intruders. The wall is broken in many parts, and an air of entire desolation hangs over the whole place; the headstones and rude wooden crosses are torn down and defaced, and the few costly tombs that once helped to embellish the churchyard have long since succumbed to the hand of ruthless mischief, and now but tend to increase the aspect of entire ruin.

OLYMPUS.

### SCIENCE AND SPLUTTER IN MOUNTMELLICK.

At a meeting of the guardians of this union a report was read from the committee appointed to examine certain works executed at Kilmannan burial-ground. The work appears to have been very badly executed. The clerk of the works was severely censured; and eventually a motion was proposed and carried for his dismissal. The subject, we may add, led to a long and violent discussion in the board on the part of the clerk of works' friends and opponents. The following passage is too rich to omit:—

Mr. Odium said that in addition to getting a guinea for the plan, Mr. Wright got five per cent. on the contract price.

The Chairman, in reply to Mr. Clarke, said that the work was certified for, and paid for long ago.

Mr. Feighery—It is very easy to see the thing. There is no mortar under the sods. There was nothing but complete carelessness, and the man that did it in that careless way could not be supposed to know much. In fact, if it was stringently looked after, and these things pointed out, the work should have been condemned. It is visible on the superficial face of it without going into the interior of the wall at all—it is all nonsense to admit it was not well done six months after the discovery was made. When I saw the plan I knew from my recollection of the ground it was inaccurate. Without going into egotism, or making any boast of my own knowledge, I am able to say there is not a bit of this laid down by measurement.

Mr. Wright—There was.

Mr. Feighery—The man that laid it down, then, by measurement was an incompetent person, and knew very little of science. Perhaps it was not you, but some other persons did these things for you.

Mr. Wright—I never leave my work to assistants. Mr. Feighery—Perhaps some person you placed confidence in to do it for you.

Mr. Wright—I always do my work myself.

Mr. Feighery—If you could not do it better than that, you want to go to school and learn.

Mr. Wright—It is too late now.

Mr. Feighery—I am sorry that Mr. Cobbe is not in his place.

Mr. Cobbe—I am quite near you.

Mr. Feighery—Oh, I mean that great man, Mr. Cullen. I am sorry he is not here, for he attacked me on this day week. He swooped down on me like a great vulture, to tear me to shreds, and said I was a spy. I am not to be cried down like that. He said how would I like all my antecedents to be brought up. I don't care what he is able to bring, but what a fine person he is to judge of a matter of this kind; he is quite incompetent to judge of these maps, and his deputy, Mr. Cobbe—

Mr. Cobbe—Is everything you say as correct as that? If it is, I would not believe one word you say. I am not a deputy to any man. Mr. Cullen was here last day, and you were dumb before him.

Mr. Feighery—Because I was cried down by him and a few others.

Colonel Carden—I rather think this is out of order.

Mr. Meredith—I suggest that we go by what the gentlemen on the committee say.

Mr. Feighery—I am replying to an attack upon me by Mr. Cullen, and I hope what I say will be conveyed to him by Mr. Cobbe.

Mr. Cobbe—Go on; hear, hear.

Mr. Feighery—I was employed in the first engineering office in Ireland for many years, and if I was not competent I would not be employed there. I might say more, and as Mr. Cullen is not here I hope it will reach his ears—when I was so employed during that time, he was exercising the duties of "Darby O'Drive."

Colonel Carden—I really think this is out of order.

Mr. Feighery—What I say is the fact. Mr. Cullen is a pretender to a great deal of knowledge; when he comes here he knows everything—in fact, he knows nothing.

Colonel Carden—Mr. Cullen is absent.

Mr. Cobbe—Mr. Cullen is far above him, Colonel; leave him to him.

Chairman—Mr. Feighery thinks that Mr. Cullen made use of language to injure his character.

Mr. Feighery—And I was drowned down in the clamour got up, and the hubbub that was raised. As far as Mr. Cullen's information goes about plans, he is only dreaming.

Chairman—I wonder you notice anything in that way; he is not a professional man.

Mr. Feighery—But he comes here with his domineering insolence, but that is the full extent of his scholastic attainments. I believe the majority of the board believe that too.

Colonel Carden—I beg to call you to order.

Mr. Cobbe—Let him have the opportunity now.

Mr. Feighery—Would you like to hear something about yourself?

Mr. Cobbe—Say anything, if you are able.

Mr. Feighery—Aye, you stand up, with a great strut upon you.

Mr. Cobbe—Hear, hear.

Mr. Feighery—You pretend to have a knowledge of maps; you have no more knowledge of maps and plan-drawing than the great Spanish donkey I heard up the street.

Mr. Cobbe—That is more of your insolence.

Mr. Feighery—You are a most assuming fellow; he thinks he knows very much; they tried to howl me down—a set of vulgar fellows.

Mr. Cobbe—Hear, hear.

Drogheda had better look out, for her laurels are in danger of being wrenched from her; and as for Newry, we must not speak anything of the dead but what is favourable. Mr. Feighery's engineering experience would be invaluable in the Dublin Town Council. If he could not enlighten "a great Spanish donkey" in that august assembly, he might, at all events, succeed in enlivening them. Three columns of a debate, of which the above is a sample, is too heavy for any stomach to bear. We hope our contemporary the *Leinster Express* will in future temper justice with mercy; and when an unfortunate clerk of works is to be sacrificed, the exhibition of breaking a fly upon a wheel will not be gone through.

### CIVIC LYRICS.—No. LXVII.

#### THE BATTLE OF THE WARDS.

November next, November next,  
Some magnates will be sorely vexed,  
Who built their castles high in air  
And aped to fill the Civic Chair;  
These *Drainage* fellows are not few—  
They're known to me, they're known to you;  
To-day they seem a little perplexed;  
They'll smart, I ween, in November next.

November next, November next,  
Some old fogies long unsexed  
By talk and doings insensate,  
Babel combined with Billingsgate,  
Will be relieved from trusts betray'd,  
To follow the "noggin-weaving" trade.  
Now we know they are sorely vexed;  
What will they be in November next?

November next, November next,  
The surplus staff will feel perplexed;  
Friends at the helm will cease to be  
For hangers-on in adversity.  
Sir Tom Noddy, with rufefal face,  
Will lose his power, if not his place;  
And other Sirs and half-Sirs, vexed,  
Will cut their sticks in November next.

November next, November next,  
"Out with them all!"—that is the text—  
Those higgling common council men;  
Those wriggling, oily Aldermen,  
Those lawyers' friends and peoples' foes,  
Who'd job and rob until life's close.  
"Out with them all!"—that is the text,  
And save the City, November next.

CIVIS.

### SANITARY AND OTHER NOTES.

At the Northern Divisional Court, the diseased meat case was brought on for hearing. Michael Byrne, who resides at 91 Francis-street, appeared on summons, issued at the instance of the Public Health Committee, to answer the complaint of Ephraim J. Webb, Inspector of Nuisances, who alleged that on the 26th of July last the defendant had in his possession, on the Conyngham-road, a quantity of diseased meat, unfit for human food. Mr. E. A. Ennis appeared for the prosecution, and Mr. Philip Keogh (instructed by Mr. C. Fitzgerald) was for the defence. Some time since the men in charge of the floats containing the meat were proceeded against, but the magistrate dismissed the case on the ground that they were not the parties who should be held responsible. The defendant in the present case is the owner of the floats in question. Mr. Ennis stated the case for the prosecution, repeating substantially the evidence given on a former day, to the effect that the meat was conveyed from Kilcock to the house of Mr. Onion, in Patrick-street. After a long hearing, and much evidence being tendered, Mr. O'Donel said he confessed that from the turn the case had taken, from the fact of the non-production of Mr. Cartwright, who was the deputy of Professor Ferguson, and who went down to Kilcock for the special purpose of examining those animals, and from the evidence of the police-constables, which was favourable to the defendant, he thought the case for the prosecution had failed. He was simply expressing a legal and not a moral view of the case. The animals were examined in Kilcock by the Government officer, who pronounced them sound, and they were then removed to Dublin. The hour at which they arrived in Dublin was fully accounted for by the delay which took place in Kilcock. He should, therefore, dismiss the summons. It is to be regretted that the case has broken down. The Public Health Committee, by resolutions, have approved of the conduct of Mr. Webb, the Inspector of Nuisances, and Sergeant Gavan, in regard to the matter.

In the Board of Guardians of the North Dublin Union, Mr. Franklin, T.C., called attention to the foul condition of the River Tolka at Richmond and Ballybough. Mr. Magrane said he had nothing to add to his former report. The nuisance existed within the Corporation district. Several guardians said that the condition of the Tolka was extremely bad. Mr. Atkinson, the clerk, was requested to ask Mr. Boyle, the secretary of the Public Health Committee, to bring the state of that portion of the Tolka within the Corporation district before that committee on next Friday, and suggest a conference between the officer of the Corporation, Mr. Magrane, and the secretary of Clontarf Township, at Ballybough, as to what steps should be taken by each, in their respective portions of the district, for the abatement of the nuisance. At a subsequent meeting, a letter was read from the secretary of the Public Health Committee of the Corporation, informing the board that the nuisance complained of at the Tolka would be attended to and abated!

ARMAGH.—Danger being apprehended as to the safety of the fever hospital, the Visiting Committee brought up the following report:—"We find a serious subsidence has taken place in part of the foundations of the fever hospital, and we recommend that a competent person be at once employed to examine and report on the same, and point out the best plan of remedying the defect." The report was signed by Mr. Samuel White and Mr. Robert McCrum. Mr. McCrum stated that the subsidence was not immediately dangerous, but it might become so, and the sooner it was looked to the better.

NEWRY.—At a meeting of the Commissioners, Mr. O'Hagan called attention to the fact that the quantity of water sent into the reservoir at the Egyptian Arch on Sunday was very limited, and insufficient to supply the requirements of the town. Dr. Waddell observed that Camlough Lake was very low at present. Mr. O'Hagan said the surface of the water was twelve feet above the pipe, so that the insufficient supply could not arise from this cause. On the contrary, he attributed it to the turning off of the water at the lake on Saturday night on the supposition that a large quantity would not be required on Sunday. He, therefore, proposed—"That the seal of the Commissioners be attached to the following notice, and that the Town Clerk be directed to forward same to the Camlough Waterworks Trustees:—"To the trustees of the Camlough Waterworks. Gentlemen—I beg leave to inform you that the water supply to the service reservoir at the Egyptian Arch has been insufficient and defective for the last twelve hours, and I am directed by the Town Commissioners to call your attention to the 90th section of the



Newry Improvement and Water Act, 1871, and to apprise you that if, after the expiration of twenty-four hours from the receipt of this notice by you, the proper quantity be not supplied, the Town Surveyor will be instructed to take possession of the lake for the purpose of securing for the town the proper supply of water as guaranteed by the act. The motion was seconded by Mr. Erskine, and passed unanimously. Mr. Meares said that if the trustees put in a self-acting valve at the reservoir such a contingency as this could not arise in future. An application was made by Mr. Charles A. Mark for a loutain at Bell-row, where, owing he thought to want of water, scarlatina was now very prevalent. Mr. O'Hagan said if Mr. Mark wanted a supply he could take it from the main-pipe, and in his opinion the fountains at the railway crossing and in Monaghan-row were sufficient for the locality. The majority of the board concurred in the same view.

### THE MAIN DRAINAGE OF DUBLIN.

Not until the citizens and the ratepayers shewed by their important requisition that public opinion was at last being brought to bear in an influential manner upon Corporate neglect, did the Municipal body attempt doing what they should have done several months ago. On the eve of the Mansion House meeting a resolution was passed in the Town Council stopping all the expenses connected with an illusory scheme. Despite the passing of this resolution, we do not believe that all the expenses connected with the Main Drainage staff have been stopped, or even nearly all. Time will prove us right, perhaps, in this opinion. The practical outcome of the Citizens' meeting is the appointment of a committee to carry out the work indicated in the following resolution, proposed by Mr. George Woods Maunsell, D.L., and seconded by Mr. Thomas Pim:—

That a committee from this meeting be appointed to consider the advisability of memorializing the Government for the appointment of a Royal Commission, or otherwise, to ascertain whether a scheme of Liffey purification could not be devised which, while efficacious for the purpose, shall be better suited than that sanctioned in 1871 to the circumstances financially of the city of Dublin.

It was not to be expected that the Corporation would view lightly the work and results contemplated in this resolution; so we have had a private meeting of the "whole house" of that body on Thursday, at which a resolution was proposed to apply to the Government to appoint a Commission to inquire into all the plans submitted for the purification of the Liffey. Of course, the aim of the Corporation now, after having been driven to bay, is to cause what obstruction they can, and, if possible, to defeat the objects of the Citizens' Committee.

More breathing time is needed to brew a project and scheme; but, whatever may be the upshot of cross-counsel and cross-purposes, one duty devolves upon the citizens and ratepayers, and that is, henceforth to guard their interests by putting in honest and competent representatives. The time is now most opportune; and the most expeditious way of purifying the Liffey and the Town Council of the city is to return a number of fresh representatives to that body in November. With the exception of a very few members, the present Corporation of the city is entirely worthless. Some are useless for all public good, because they are utterly incompetent, and destitute of any practical ability; and others who do possess some capacity exert it for their own personal aims and purposes. This is why thousands upon thousands of the public funds have been squandered year after year in law costs, pensions, gratuities, deputations, increase of

salaries, and a host of sundries. We have so often exposed the abuses existing in the Corporation, that we shall refrain from entering at present into details.

There is a well-known clique infesting the Municipal Body for years, whose hand can be traced through a series of jobs for the last ten or fifteen years. There is no need to name them. Some of them are worthy children of worthy parents, and parents of worthy projects. In the language of Curran—"The maker's name is stamped upon the blades."

The most wholesome, practical, and best advice we can give the ratepayers is—Reform your Town Council first, and other reforms will follow. REMEMBER NOVEMBER NEXT!

### THE BRITISH ASSOCIATION—MEETING AT BELFAST.

THE arrangements for the forthcoming meeting are nearly perfected, and so far have been duly announced in the local press. We anticipate that the association will meet a reception in the "Northern Athens" which will favourably compare with that accorded to it in many towns in the sister kingdoms.

The inaugural address will be delivered on Wednesday evening in the Ulster Hall, by the President, Professor Tyndall, D.C.L., F.R.S. On the following day the sections will meet at eleven o'clock and adjourn at three; and we understand a similar arrangement will be adopted for each day till the Wednesday following.

The sections will be opened on Thursday morning by addresses from the respective presidents. The subjects of the addresses will be announced in the "Journal," or Association's programme, for that morning, so as to enable members and associates to select for attendance those sections they may think most interesting.

In addition to the ordinary sittings of the various sections, there will be evening meetings held in connection with the Association. On Thursday evening there is to be a *conversazione* in the Ulster Hall, and a similar entertainment on the following Tuesday evening in the same place. After the performance of a musical programme, a number of mathematical, optical, and chemical instruments will be exhibited in the body of the hall, and their various uses explained. In the Minor Hall there is to be exhibited a collection of Irish Antiquities, brought together by the Royal Historical and Archaeological Association of Ireland and the Belfast Naturalists' Field Club. On Friday evening Sir John Lubbock is to lecture in the Ulster Hall on "Common Wild Flowers considered in their relation to Insects;" and on Monday evening Professor Huxley will lecture in the same place on "The Hypothesis that Animals are Automata, and its history." On Saturday evening Professor Odling is to deliver a lecture specially to the working classes, on "Potash," in the Ulster Hall.

Two excursions have been fixed for Saturday, the 22nd inst.—one to Coalisland and the Tyrone Coal Fields, and the other to Castle Espie Lime Works, in County Down, where, we believe, preparations are being made for a series of experiments to illustrate the power and explosive properties of the new blasting agent, dynamite. The entire expenses connected with the excursion to Castle Espie will be defrayed by Mr. Samuel Murland, J.P., who will also entertain the company to luncheon.

The regular Association excursions will take place on Thursday, the 27th inst. Seven have been arranged for. The one to the Giant's Causeway will be under the direction of Mr. William Gray, C.E., M.R.I.A., and the Rev. Edmund McClure, M.R.I.A. There will be a second to Lough Neagh, Shane's Castle, Massereene Park, and Antrim Round Tower, which will be under the direction of the Rev. Dr. MacIlwaine and the Rev. Dr.

Macloskie. There will be a third to the Antrim Coast Road, Glenarn, and Garron Tower, which is to be under the direction of Mr. Hugh Robinson; and a fourth to Newcastle, Bryansford, and Donard Lodge, under the direction of Mr. Traill, of her Majesty's Survey, and Mr. Duffin, who formerly occupied a similar position. There is also to be one to Duncruc Salt Mines, the Belfast Water Works, and Carrickfergus Castle, under the direction of the Rev. G. C. Smythe, of Carnmoney. An excursion has been arranged to Glenravel Iron Mines and the Peat Compressing Works of Cargan, in the County of Antrim.

In connection with the excursions, it may be mentioned that in April last the local committee arranged with the Belfast Naturalists' Field Club to draw up a guide to the various localities of interest in the neighbourhood. It was at first intended that it should be a pamphlet, giving a mere sketch; but in the hands of the Club it has far outgrown the dimensions originally proposed. On Tuesday a deputation from the Club, in fulfilment of their engagement made three months ago, handed to the chairman a book of 350 pages, replete with most varied and interesting information. It contains chapters on physical geography, geology, ethnology, botany, and zoology; and the antiquities, monumental and ecclesiastical, of the various localities; and also chapters on their trade, commerce, and agriculture, the work being illustrated by about forty-six lithographs of the principal objects of interest of the districts. It is also accompanied by a map of Antrim and Down, on which are marked the places containing antiquities or special objects of interest. We must postpone until next issue a detailed notice of this valuable volume. Its production within the space of three months must have entailed a vast amount of labour and anxiety on the members of the Club, but more particularly on its honorary secretary, Mr. Gray, who, we opine, had the heaviest part of the task.

### OUR MAIN DRAINAGE, AND ITS COST.

We are informed that a special meeting of the Corporation is to be held on Monday next, to take into consideration the recommendation "to request her Majesty's Government to issue a commission to an independent engineer of eminence, to examine and report upon all plans submitted to him for the purification of the river Liffey. That all particulars of expenditure in connexion with the Main Drainage, from the commencement of the scheme to the present, be printed and circulated amongst the members of the Council without delay, with full details, and the names of all parties who have received any moneys out of the funds, either as fees, personal expenses, or deputations."

### TO CORRESPONDENTS.

J. H. (Belfast).—We have been favored with a copy of the "prospectus" of the company you inquire about. We are not at present in a position to pronounce an opinion upon the merits of the manufacture proposed to be carried on under the patent. We would advise you to wait awhile.

ROCK OF CASHEL.—A rock upon which there is certain to be a split.

VON FRINAGLE.—Any notes respecting the Professor or his family will be acceptable and duly acknowledged.

JOHN RUTTY, M.D.—This rather noted personage and voluminous author died near the close of the last century, and was buried in the Quakers' burial ground, the site of the present College of Surgeons.

A STONE MASON.—Examine the cut stonework of the front of Powerscourt House, William street, and the steps and balustrades or handrail that leads to entrance. Robert Mack, was the architect, and the skilful Dublin masons of that day, (1771-4) received no more than 2s. 6d. to 3s. per day, superior ones perhaps 3s. 6d.

RATEPAYER.—It depends to a great extent upon the action of yourself and brother burghesses whether the members you name will be re-elected. "No more oiled speech; it is time the drove." &c.

BANKRUPTS.—Patrick Mason, of 22, Edenquay, and of Stoney-road, Newcomen Bridge, city of Dublin, railway sleeper manufacturer, to attend 25th August and 11th September. Benjamin Norman, of Ardagh, Athy, County Kildare, builder, to appear on Tuesday, 1st September, and on Friday, 18th September.



## MONUMENT TO CAROLAN.

A MONUMENT to Carolan, the Irish bard, has been placed in St. Patrick's Cathedral. It is the work of the younger Hogan, son of the late John Hogan, our distinguished native sculptor. The work is in *bas relief*, and as described by a daily contemporary the bard is represented seated, and touching the Irish harp, his costume being that of the period of his death, nearly a hundred and forty years ago. The figure and harp are raised on a *tondo* or circular base, and are nearly five feet high. The features of the bard have been reproduced from an engraving by Rogers and an old picture in the possession of the Royal Irish Academy, which from the likeness to the face in the engraving is manifestly a portrait of Carolan. The forehead, curling hair, and melancholy smile are stamped on the marble with the utmost delicacy and finish. A bequest was left by the late Lady Morgan for the purpose of carrying out this memorial. The monument, which is fixed in the northern wall of the nave, close to its western extremity, and about six feet from the ground, bears the following inscription:—"Erected by the desire of Sydney Lady Morgan to the memory of Carolan, the last of the Irish bards, Obit A.D. 1738, *Ætatis sue anno 68.*" This work, says our contemporary, does the utmost credit to the talents of Mr. Hogan, who having devoted himself to the same profession as his illustrious father, will, we have no doubt, hereafter win additional laurels for himself.

## THE AR-MEN LIGHTHOUSE.

IN the list of awards at the Vienna Exhibition, there occurs this unpretending announcement: "A medal to the sailors engaged in the building of the Ar-men lighthouse." The *Bulletin Francais* furnishes an explanation, and proves that the recipients of the medal are heroes in no ordinary sense of the word. The mountain system of Brittany, as our readers may perhaps be aware, has a sort of continuation in a series of reefs and igneous rocks which jut out in a broken line westward of Finisterre. On one of these rocks, called *l'île de Sein*, there stands a lighthouse, but the real danger lies to the westward and the rocks there have literally bristled with wrecks of vessels making for Brest. In 1860 the committee for lighting the coast of France decided to erect a lighthouse on the extreme end of the danger, and after a careful examination, M. Ploix the consulting engineer, decided on the Ar-men rock as the best site. At the same time he did not attempt to depreciate the prodigious difficulty of the task and characterised it as "nearly impracticable." The currents are so strong, and the sea runs so high that neither M. Ploix nor the other engineers, nor the director of lighthouses, was able to approach nearer than fifty feet. All they were able to ascertain was that the rock was gneiss, about eight yards across and twelve in length, and that it was just visible at low water. After settling their plan of operations, they applied to the fishermen of the neighbouring island of Sein, as most familiar with the locality and the danger, to commence the necessary works. These men undertook the task, and provided with life belts began to watch regularly for the best opportunity of landing on the rock. As soon as they got their chance, they crouched down on the rock, and clinging on with one hand, with the other worked away with a cold chisel so as to sink a sufficient number of sockets for the insertion of the iron clamps. Every now and then a wave would break over the rock, drenching them with foam and spray, and not unfrequently one of the party would be carried right off by the heavy sea, but would soon be picked up by a vessel kept purposely on the watch. At the end of the first season (1867) seven landings had been effected and eight hours' work done, which sufficed for the sinking of fifteen sockets, while the following year the weather was more favourable, and forty new holes were pierced, some of which were below water. In 1869 the blocks of stone were first placed in iron clamps about a yard long, rivetted into the sockets. The blocks were all hewn according to pattern, and joined together with Parker-Medina cement. The work of dropping them into position was exceedingly laborious, owing to the violence of the sea; but two of the officials were constantly in attendance, urging on the workmen, and at the end of the season twenty-five blocks, each about a yard cube, had been successfully laid. In 1870 eight landings took place and eleven cubes

were laid, and in 1871 as many as twenty-three, the work by this time becoming easier as further progress was made. A steam launch is now used for the conveyance of material, and a sort of masonry scaffolding having been built, the builders have succeeded, during the first half of this year's season, in placing in position no less than eighty-seven blocks. The expense, however (as may be imagined), has hitherto proved considerable. Each of the forty-five holes pierced during the first two years cost upwards of 2,000 francs, and on December 31 last the charges had amounted to more than 189,000 francs. The light is to be a revolving one of the order, and 97 feet above high-water mark; there are to be seven storeys in the house, and there will also be a steam whistle for use in foggy weather. The names connected with this really grand achievement are the following: M. Léonce Renard, director of the lighthouse service, the father of the project, and Messrs. Planchat, Joly, Cohen, Lacroix, and Probestean, the engineers and foremen; the names of the plucky sailors, who did the hardest part of the work, are, however, unrecorded.—*Academy*

## HOME AND FOREIGN NOTES.

**AWNINGS.**—Several Edinburgh shopkeepers were last week fined for having awnings placed in front of their premises at less than 8 ft. from the ground. The authorities prosecuted because a letter had been received from a gentleman whose hat had been knocked off by coming in contact with the shade over one of the shops! One of the defendants protested with considerable vigour, and intimated that he would have the question re-opened. [It would be well if our authorities made a similar onslaught on transgressors in this city. In several thoroughfares it is dangerous, as well as inconvenient, to come in contact with the protruding poles and canvas allowed to remain out both day and night. The police officers should be taught a few lessons as to their duty, in the Lower Castle-yard.—ED. I.B.]

**TRADE EXCURSION.**—The employés of Mr. William McCammond, contractor, Autrim-road, Belfast, had their annual excursion on Saturday, the 1st inst. The party met at Carlisle Circus at 9 o'clock, where they were joined by their employer, and from thence proceeded on cars to Greyabbey. The ruins of the abbey and other interesting sights were inspected, after which refreshments were partaken of. A pretty fair selection of music and recitations was rendered during the day. The party started for home at four o'clock, having thoroughly enjoyed themselves.

**IMPURE MILK.**—The *Daily Telegraph* remarks that Lord Dunmore has very seasonably called the attention of the public to the dangers which lurk in the milk jug, and a new discussion of the question has arisen. An outbreak of typhoid fever in his lordship's nursery was found, after much investigation, to be traceable to the quality of the milk on which his children had been fed. The fluid in question had, it seems, been taken from a "feverish" cow, and was, if not exactly "putrid," yet at any rate in an active state of decomposition, and full of noxious products. The dairyman may do his best; and there is every reason to believe that in most London establishments every possible precaution is adopted. Indeed, many of the large dairies employ skilled medical advice, and subject their farms to a regular sanitary supervision. But it is at the same time clear that no caution, however thorough, can prevent an occasional admixture of wholesome milk with unwholesome; and it is as well that households in which there are children, and where milk is largely drunk, should follow the judicious advice of Dr. Southby, and "scald" or "parboil" every drop before it is used. Exactly as water, however noxious, becomes at once sufficiently wholesome if it is boiled thoroughly before it is used for drinking purposes, so milk, if scalded, may be used with comparative confidence.

**FLOWERING PLANTS AT GLASNEVIN.**—A noble plant of *Cordylina australis* (Hooker)—*Dracæna australis* (Forst. Prodr.)—is now fully in flower in the Botanic Garden, Glasnevin. It is a New Zealand plant, and not the Norfolk Island plant, which goes under the name of *Cordylina australis* in our gardens. The latter is *C. Baueri* (Hooker)—*Charlwoodia australis* (Sweet), and *Dracæna australis* ("Bot. Mag.")—which, though often seen in our large conservatories, is not a hardy plant in any part of the British Isles. The plant at Glasnevin, as we learn from Dr. Moore, has stood without any protection during the last seven years, and has now a stout straight stem a foot in circumference, and nearly 14 feet high. The panicle of inflorescence is nearly 2 feet wide at the base, and rather more than 2 feet from base to apex.

This fine *Cordylina* was received at Glasnevin, from the Oxford Botanic Garden, thirty years ago, when it was a very small plant; it got too large for the plant houses and was, consequently, put out-of-doors, where it has succeeded admirably. *Chamaerops Fortunei* (Chinensis) is also flowering freely out-of-doors at Glasnevin this year; it has been planted out seven years.—*Garden*

**HOT AIR AND COLD ROOMS.**—Because, when the air of the streets marks 30 or 40 degs. on the Fahrenheit scale, a room over-warmed by a fire can be cooled by opening the windows, the average British householder adopts the ready conclusion that whenever a room feels hot the way to cool it is to let in the external air. Accordingly in these piping times he, and still more often she, opens the windows on the sunny side of the house, and lets in air of a temperature varying from 100 degs. to 120 degs. or so. Then, because in a very short time the room, naturally enough, becomes much hotter than it was, it is considered that the windows are not opened widely enough, and the supposed error being remedied, a still larger quantity of hot air is then let in. And so we find *Materfamilias* sitting with a very little light muslin upon her frame, and a great deal of perspiration upon her upper lip, her face the colour of an Orleans plum, and her condition of mind to the last degree dejected, simply because she persists in disregarding the most elementary principles of natural philosophy. We tell her that if she will open the windows on the shady side of the house only, and keep the others closely shut, her dwelling will be at least not hotter than the shady side of the street, whereas by her arrangement it acquires the heat of the sunny side. We tell her also that if her house be large and the inmates few she may live in a delightful state of coolness by only opening the windows at night, and keeping them closed during the day. Her house will then be some 10 degs. or 15 degs. lower in temperature than the street, and convey very much the refreshing effects of a cool bath upon entering it. We tell her all this, and she is very much interested. At our next visit we find every window open, and the house full of red-hot air. "It stands to reason," she says triumphantly, "that you cannot possibly cool a house without plenty of ventilation."—*Lancet*.

## NOTICE.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbott-street, Dublin.

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ANCIENT TOMB, CLARE-GALWAY.



# The Irish Builder.

VOL. XVI.—No. 353.

*Architecture in its Relation to Agriculture.\**



THE Architect, Builder, Engineer, and Operative, not only in their characters as citizens, but in their professional characters, must needs feel an interest in the cultivation of the land. The interest of towns in the Land Question is more closely wedded than would seem at first sight. The land is the basis of our national wealth, not only as the fruitful mother of all we eat and drink, but the mine from whose bosom we extract the materials of construction and the raw produce of all that goes to ornament them and render them pleasing and comfortable.

Looking on the matter in this light we view the General Abstracts just issued by the Registrar-General with deep concern, because they embody statements of the utmost importance to the welfare of this country. Summarising these agricultural statistics submitted to the Lord Lieutenant, we find that, compared with last year, wheat shows an increase of 21,157 acres, bere and rye of 636, mangold and beet-root of 65 acres, cabbage 4,930 acres, carrots, parsnips, and other green crops of 3,124 acres, and meadow and clover, 67,835 acres. In oats there is a decrease of 30,786 acres, barley of 18,767 acres, beans and peas of 147 acres, potatoes of 10,841 acres, turnips of 14,361 acres, vetches and rape of 2,018 acres, and flax of 22,411 acres. There is a decrease in green crops in 1874 to the extent of 19,101 acres, and a total decrease in the extent of land under crops of 2,907 acres. The total extent under crops, grass, fallow, woods and plantations, and of bog and waste unoccupied in 1873-4, in the four provinces amounts to 2,325,693 (exclusive of the large rivers, lakes and tideways). Of bog and waste unoccupied at present there are 4, 250,621 acres.

What an enormous area to be lying unproductive; and when it is stated that the acreage of "bog and waste unoccupied" had not any live stock on it at the period of the enumeration, it becomes a serious matter for reflection.

Of live stock compared with last year, there is a decrease in the number of horses to the extent of 6,677; in cattle of 28,989; and in sheep of 46,907; but in pigs there is an increase of 52,040. The total estimated value of horses, cattle, sheep, and pigs this year is £37,225,887, being a decrease of £228,392. The difference in value, therefore, between 1873 and 1874 in horses is £53,416 (decrease), in cattle £188,428, in sheep £51,598, in pigs £65,050 (increase). The pigs are the live stock which shows an increase.

We now come to other matters which are the sources of great wealth to this country, particularly to the northern province. The number of mills for scutching flax in each

province in 1873 was—in Ulster, 1,335; Leinster, 29; Munster, 33; Connaught, 30, making in all 1,427.

Emigration, which has drained the life-blood of this country for a number of years, we are happy to see exhibits a decrease. In the first six months of 1873, the returns of emigrants from the several parts of Ireland show that 60,140 persons left this country. The number for the same period in 1874 was 45,781, being a decrease of 14,359 persons in the first half of the year. The next subject—that of labourers' dwellings—is a matter of growing importance in the building community, as well as to the agricultural labourers themselves. On social and sanitary grounds it is also a question of importance. The Legislature have for some years enabled the Treasury to grant loans for the improvement of labourers' dwellings, but the facilities, we are sorry to say, are availed of to a very limited extent. In our recent notices of "Public Works in Ireland" we furnished some particulars, as also in our notices of the Census Returns. According to the census of 1871, the number of fourth-class houses in Ireland, most of which had only one room for the entire family of every sex and age, was ascertained to be very considerable; and in these were living nearly half-a-million of persons. This is a deplorable statement, and one that reflects but little credit on the landed proprietary of this country that allow such houses to remain on their property, to be pointed to by foreigners and visitors with derision. We do not call for the demolition of these houses unless others are to be substituted of an improved description. Had comfortable and healthy labourers' dwellings been provided by the landed proprietors and farmers for their workmen years ago, emigration would not have robbed this country of half the number of our peasants which it has done.

Although it appears by the Returns that great improvement is observable in the breeds and value of every description of farm stock, it is admitted that a corresponding improvement has not taken place in the cultivation of the land, and in this particular we see an impending danger. If improvement does not take place in the cultivation of the soil, little improvement will, we fear, take place in the improvement of the labourers' housings. If the latter are provided, we may reasonably expect an improvement in the former.

The subject of weeds and their unchecked growth is alluded to, and we fully coincide with what is said upon the subject. There is no doubt but that great injury and pecuniary loss is suffered by permitting weeds to grow so universally all over the country, not only to grow but to blossom and spread their seeds broadcast for a double growth for the following season. We have known an instance in the County Dublin of one gentleman farmer having such an aversion to weeds that he offered to pay the expenses of extirpating the weeds upon an adjoining farm sooner that suffer the injury which his crops would suffer by the seeds being wafted by the wind in upon his well-cared for land. The offending farmer was, however, a lover of weeds; he believed there was luck in weeds, and let them grow uncontrolled. His potato and corn crops were so intermingled with the blossoming weeds that it was sometimes difficult to say which was the real crop. The potato-digger and the reaper had a double crop to cut, and previous to the harvest the pigs fed luxuriously upon the

uncut corn. The landlord cared not so long as he was paid his rent; and if he gently remonstrated with the Fingalian farmer he, perhaps, got an answer in this form—"Juggy (Judy) and I ates the pigs, and the pigs ates the whate." These were some of the practices of Fingal when we were boys, and we believe are still, in the County Dublin. The weeds in places are allowed to grow apace, and the pigs to do the weeding.

In the Appendix to the Return of the Registrar-General, very useful information is given, which will be found most valuable to those engaged in the cultivation of land. We hope it will induce farmers to go in at once with a general determination to extirpate weeds, both from tillage and grass lands, and also lead to their extirpation from highways, railway embankments, canals, and waste lands. That every information may be afforded to the cultivator of the soil, the botanical, the common, and the Irish names of the weeds are given. *En passant*, we may add that the Irish names were furnished by the late Celtic scholars, John O'Donovan and Eugene Curry. Annexed is also a list of the most noxious weeds with compound flowers which grow wild in Ireland, and which, according to Dr. Mackay, the author of the "Flora Hibernica," produced seeds in the greatest quantity. An act has been recently passed in the colony of Victoria to insure the destruction of weeds. The owner or occupier of the land on which they grow may be ordered by a justice of peace to destroy them, and is liable to a fine for not complying. The act might, with advantage, be applied to this country.

From what has been written above, it will be seen that agricultural improvement means more than the improved condition of the land. It means increased harvests, better farming, increased intelligence, better homes for the agricultural classes, health and prosperity, and with it an extension of the business of architect, engineer, builder, and operative. The interest, therefore, of the towns in the Land Question is a wide one. There is, or should be, a mutual reciprocity, and the stronger that this sympathy grows the more intimate will be the relations in the concrete and the abstract between Agriculture and Architecture.

## THE BRITISH ASSOCIATION AT BELFAST.

THE meeting of the British Association at Belfast, viewed in every light, must be pronounced a success. The genius and talent elicited and illustrated, *adscriptus gleba*, may fairly compare with what has been brought to our shores by our kinsmen across the channel. Native intellect shone in more than one department; and, apart from theological questions, the scientific utterances heard at Belfast are of grave and deep importance to the future of our people.

We are unable in this issue to afford to our readers a tithe of the valuable papers read and lectures given; nor is it necessary, for those who take an interest in the annual proceedings of the Association will find them reported pretty fairly in detail in the daily Press.

The inaugural address of the President for the year, Professor Tyndall, has caused, as might be expected, some commotion; and the learned Professor will have for many months, and perhaps years, to come to bear the brunt of no favourable criticism. We

\* Agricultural Statistics—Ireland, &c. Dublin: Alexander Thom.



will not attempt to pronounce any opinion on the moot points touched upon in the President's address on the origin of life and its surroundings. Time, perhaps, will solve the enigma more satisfactorily than has yet been done by the aid of science and religion combined or apart. We hope for great and lasting triumphs by the aid of scientific enquiry, and we are certain that we do not hope in vain. Whether it be a Tyndall, Huxley, Lubbock, or a Carpenter, we have a right to listen to their theories with respect, and if they give us facts—facts that can be corroborated by an overwhelming mass of evidence, it will not do to laugh them down. Religious weapons are dangerous and mostly out of place in scientific discussions, and we care not to see allusions on either side tending to mar the reciprocity of good will that should exist between man and man, no matter to what school of scientific or religious belief he may belong.

Improvement and advancement in art and science are everywhere visible, and we believe Belfast can show that architecturally, socially, and sanitarily, she has made a pretty fair advance since the last meeting of the Association in that town in 1852. In connection with the "Northern Athens" there are projects accomplished within the last forty years—nay, within the last quarter of a century, that men living at this period little dreamed of seeing realised. Docks, public buildings, new streets, people's park, sewerage and drainage works, and sundry other improvements have taken place in Belfast, and the interests of education and religion have been propelled further ahead than the same interests in much larger places. Belfast, therefore, though far from being perfect in regard to some urgent public requirements, affords an illustration of what energy, education, industry, science, and art combined can accomplish. It also affords evidence to show some somnolent and misanthropical folk who profess to see the devil in every scientific theory or project, that the world of science and art moves ahead despite their railings.

Of Belfast locally in connection with the meeting of the Association, we are certain that the town and its environs afforded by its scenes and scenery much enjoyment as well as instruction; and during the several excursions and visits made by strangers and visitors to the mountains, vales, coast, mines, quarries, and manufactories, an impression must have been created of the vast material wealth of Belfast and neighbourhood, and of the rich resources she possesses of the mineral kingdom. Coal and iron and good building stone are in abundance, and a variety of sands and plaster clays suited for brick-making and pottery purposes.

We give in this issue portions of some papers read of interest to the general as well as native reader, and we conclude our brief notice by thanking the English representatives of the Association for the rich flood of information which they have contributed towards the advancement of science in a congress that must be long remembered with pleasure and profit in the "Northern Athens."

Mr. Charles J. Wister, in the *Journal of the Franklin Institute*, for July, has a paper "On the Moon's Figure as obtained in the Stereoscope," in which he shows that the oval or egg-shaped figure of the moon, as deduced from the calculations of the continental astronomer, Gussew, of Wilna, after stereoscopic examination, is an illusion connected with the principles of that instrument.

### JOHN HENRY FOLEY, SCULPTOR.

THERE has always been something mournful and sad in connection with the lives and deaths of Irish Sculptors. From the days of the agonizing struggles for existence on the part of Edward Smyth, down to the dark hours when John Hogan breathed his last, ill-patronised and coldly received by his own countrymen among whom he came to spend his last days, the Irish School of Sculpture exhibits a series of sad chapters. There have been a few brilliant pictures of glory and triumph, but they have been short-lived.

Of all our Irish Sculptors, perhaps Mr. Foley may be pronounced the most fortunate. His talent was early recognised, patronage came, and honours gradually succeeded, and long since his fame as an artist has been assured. Mr. Foley was born in this city in the year 1818, and his first studies were pursued in the Royal Dublin Society's School of Art, which he entered as he entered his teens. He studied hard, and carried off several prizes in drawing and modelling of the human form, animals, and architecture. His skill in modelling was quite wonderful for his age.

In 1834, when about sixteen years of age, he went to London and entered the Schools of the Royal Academy. His first exhibits, in 1839, were "Innocence" and "The Death of Abel"; next appears "Ino and the Infant Bacchus." In 1842 Mr. Foley exhibited a very effective design in "The Homeless Wanderer," and after, an even more critically successful work, "Youth at the Stream." He was one of the three sculptors chosen to adorn the New Palace of Westminster, and his commissions were the statues of Hampden and Selden. The first was finished in 1847 and the second in 1853. In the great London Exhibition of 1851 he produced "The Mother," a work exhibiting much tenderness. His "Egeria," commissioned by the London Corporation in 1854, is placed in the Mansion House. In 1856 came his successful group in bronze, "Lord Hardinge on his Charger." In connection with this group, a requisition bearing one hundred and fifty signatures by persons distinguished in literature, science, and art, was presented to the artist, earnestly desiring to see a duplicate of the work erected in London. His "Caractacus" for the London Mansion House was modelled in 1858, and shortly after he was made a Royal Academician. A diploma work from "Comus" succeeded. One of his most spirited statues is that of Sir James Outram reining his charger, looking back at the troops he is leading on to victory. A committee was formed to produce a replica of this work, and it is likely to appear. In 1871 came that remarkable group representing "Asia" in the Albert Memorial, Hyde Park.

About this time and previously Mr. Foley was suffering from exhaustion through overwork. He went for a short period to Hastings to recruit his health, and he also paid a visit to Dublin, during which he attended a meeting of the O'Connell Monument Committee at the City Hall. On the occasion of his visit to Dublin, we heard him describing the progress he had made with the O'Connell Monument, and he gave a brief description of the details of the work. From what he stated there, it was believed that the monument would be finished in less than two years from that date.

After his return to London spells of ill health occurred at intervals to retard not

only the work of the O'Connell Monument, but of other important works on which he was engaged. His commissions latterly were many, and he would require to have lived for several years to have completed those in hands. He leaves uncompleted also the colossal statue of Prince Albert for the centre of the Hyde Park Memorial. The model, however, has been completed for some time.

We have not a complete list of Mr. Foley's works to hand; but, beside those already alluded to, he produced "Lear and Cordelia," "Venus rescuing Æneas," "Prospero narrating his adventures to Miranda." Among the more important of his life-like portraits are those of Burke and Goldsmith at Trinity College; Father Mathew, at Cork; Sir Dominick Corrigan and Sir Henry Marsh, Sir Charles Barry, executed for the New Palace at Westminster; Lord Herbert, for the quadrangle in front of War Office; Lord Elphinstone, for Bombay; a Parsee dignitary, for the same city; and Mr. Fielden, M.P., for Todmorden. He produced other portraits and monumental memorials, displaying rich invention and classic taste in execution. Indeed, the most of his works are successful performances. We believe that the O'Connell statue, although incomplete, is sufficiently advanced to prove that the genius of the master workman is evidenced in its conception and execution.

Mr. Foley died at his residence, 10 Osna-burgh-street, London, N.W., on Thursday, the 27th ult., at the comparatively early age of fifty-six. It is but a few months since, when he mourned the death of his brother. As Irishmen, we regret his loss, but we are proud to record his fame honourably won, and universally acknowledged.

### PUBLIC RIGHTS AND PUBLIC NUISANCES.

#### IRRIGATION IN IRELAND.

##### TWELFTH ARTICLE.

BEFORE entering into details of modern instances of irrigation and systems of sewage farming, we will give a brief retrospect of the ancient mode, and of the attempts made in Ireland during the eighteenth century to irrigate by means of water-flooding and "warping." Irrigation was practised by the Egyptians and Chinese and other nations in very early times, and the overflowing of the Nile was utilised by various plans for agricultural purposes. In Italy the waters of the Po and other rivers have been used for irrigation purposes before the time of Virgil. From Italy the practice gradually extended itself to France and Spain, and finally in the fenny districts of England, but at a recent date—about the end of the seventeenth century—irrigation was adopted. Perhaps no country possessed such a large extent of water meadows than Italy, the whole country from Venice to Turin being one great water meadow. In Bengal wells have been and are dug in the highest parts of the fields, and from them by the means of bullocks and a rope over the pulley, water is raised in buckets and conveyed to all parts of the fields by small channels. Before the discovery of America by Columbus, irrigation was practised in Mexico; water was collected from the mountain torrents and conveyed by means of suitable channels over the land. The principal water meadows of note first constituted in England, were those of Wiltshire, begun about 1700-5, and about the same time those in Hampshire and Berkshire were begun. Towards the conclusion of the last century great improvements were made in the system. In irrigation much depends upon the chemical properties contained in the water used. Atmospheric air and water con-



tain the principal elements of vegetables—namely, oxygen, hydrogen, nitrogen, and carbon,—the rest are either present in the soil or held in solution in the water.

Towards the close of the last century the importance of irrigation was pressed upon the landed proprietors of Ireland by Mr. Tatham in his *Treatise on National Irrigation*. An edition of this work was published at the commencement of the present century by Mr. Archer in Dame-street. Both in his works in relation to England and Ireland, the well-known Mr. Young directed attention to the subject, and in some of the statistical surveys, and the “observations” thereon, published under the auspices of the Royal Dublin Society, the subject of irrigation by different modes was discussed. These modes were not, however, our present sewage farming methods, but they may be looked upon as the basis of them. The irrigation practised first in Ireland was confined to the watering of grass lands only, although fields, gardens, orchards, &c., were as capable of receiving benefit from the method as grass land. Raising a bank of earth for conducting water instead of cutting in to the sod, was one of the methods adopted in this country. This method was practised at the commencement of this century upon the Duke of Leinster’s estate at Carton. Many attempts were also made at watering by lines drawn diagonally across the declivity. As far as simple schemes of irrigation by means of river or canal water are concerned, perhaps there are few countries better situated than this country, for the most of our landed proprietors’ demesnes can in part, if not as a whole, be watered. Many proprietors and farmers, who cart dung from the city at a great expense, could save half the cost, in respect to some crops, by irrigation. Mr. Hely Dutton, the author of “*Observations on Mr. Archer’s Statistical Survey of Dublin*,” published in Dublin in 1802, offered to irrigate as much of Marlay, in this county, as could be accomplished, for five guineas an acre, besides thinning the plantations, or otherwise improving or ornamenting the demense, without any additional charge. Flooding land, by permitting water to stagnate and deposit its sediment, is an old practice, and under certain conditions to effect improvement, but it is inferior to irrigate where water can be let in and off the land at pleasure.

Mr. Dutton considered in his day the Fewes Mountain, between Dnndalk and Armagh, and the mountains near Dungiven, County Derry, could have been raised to a yearly value from two to five pounds an acre by irrigation, instead of being sterile and not worth sixpence per acre. Mr. Frazer, in his *Statistical Survey of the County of Wicklow*, spoke encouragingly of the mountain land in that county being raised in value by the like process. In explanation of some statements in Mr. Archer’s *Survey of irrigation work conducted by Mr. Dutton for the Right Hon. David LaTouche, at Marlay*, the last-named gentlemen added in his “observations” that part of the expenses (about five guineas an acre) for making watered meadows, was caused by the necessity of filling up the cuts that had been formerly made in the most unscientific manner, and also that the expense was greatly increased by being obliged to bring water a considerable distance through Captain Southwell’s demesne. These reasons rendered a stone and brick sewer covered with mountain flags necessary. An open drain would of course have saved a considerable sum. We allude to these matters simply to show the ways and means of our land improvers in the past, but meadow watering, though important, falls far short in producing the benefits that the regular sewage farming of the present day can accomplish under judicious management.

Mr. Tatham, in his *Treatise on Irrigation*, already alluded to, thus explains the system known as “*Warping*.” He says—“The word warping is applied in agriculture to describe that species of irrigation which deposits a quantity of the sediment from the flowing

tido, and which forms a stratum of soil or manure when the waters have receded from it. The definition of the word appears to be chiefly limited to tide-water flowing from the sea, though the nature of the accumulation seems to be nearly the same with the siltage of fresh-water rivers, the redundancy of which, by the way of distinction, is called ‘flushing.’ The plan recommended and adopted was to bank the land which was to be washed against the river, sloping the banks on each side of their crowns or top at the rate of three feet to every one foot of perpendicular rise. The height and breadth of the top will, of course, be regulated by the strength of the tide and the depth of the water, for the object is to command the land and water at pleasure. The openings or sluices in the banks are in a smaller or greater number, according to the extent of the land to be warped and the fancy of the proprietor generally. There were only two sluices, one called the *floodgate*, to admit, and the other called the *clough*, to let off the water gently. This was the method recommended by Lord Hawke in *Agricultural Survey of Yorkshire (West Riding)*, and he considered it was sufficient for ten or fifteen acres. As to the action: when the spring tide began to ebb, the floodgate was opened to admit the tide, the clough having been previously shut by the weight of the water brought up the river by the flow of the tide. As the tide ebbed down the river, the weight or pressure of the water being taken from the outside of the clough next the river, the tide-water that had been previously admitted by the floodgate opens the clough again, and discharges itself slowly but completely through it. The cloughs were so constructed as to let the water run off between the ebb of the tide admitted and the flow of the next, and to this point particular attention was paid. The floodgates were placed so high as only to let in the spring tides when opened, being placed above the level of the common tides. Warping was practised also by opening old drains, which served in the interim for draining the land. Oats was recommended for the first crop, and wheat and beans were considered better than barley. June, July, and August were considered the best months for warping, and wet seasons the least proper, because of the redundancy of fresh water which became mixed with the muddy tide, which weakened the saturation and rendered it less capable of depositing a sediment. Land thus manured was deemed to be the best for potatoes.”

Mr. Young, in his *Agricultural Survey of Lincoln*, says it is not the least consequence what the land is that is intended to be warped—whether it be a bog, clay, sand, peat, or a barn floor, as the warp raises it in one summer from six to eighteen inches thick, and in hollows or low places two, three, or four feet, so as to leave the whole piece level.

In Mr. Tatham’s treatise the reader will find the results of the process of warping in different soils and for different crops, and the work will afford an insight into the practice carried on by our grandfathers in the last century. In 1802, Mr. Hely Dutton pointed out the great tracts of strand between the Lighthouse and Booterstown, and between the same Lighthouse and Clontarf (the North Bull). He was perfectly convinced, from frequent examinations, that these two strands could be easily reclaimed and made capable of great improvements. He thought if Lord Fitzwilliam or Mr. Vernon at that day were sensible of the ease with which the work could be executed, and the great addition it would make to their incomes, “the suggestions of those unacquainted with such affairs would have little weight; for the sneers of ignorance have often prevented many improvements from being adopted, or even proposed, and may justly be added to the list of obstacles to the improvement of waste land. I have,” continued Mr. Dutton, “continually pointed out the practicability of this improvement, and have been answered more than once that £100,000 would not build a wall sufficiently strong to keep out the sea. I

hesitate not to declare that, except for a sluice, a *single stone is not wanting*; and also that if this idea had been originally adopted, the Ballast Office wall, that cost such immense sums, need not have been erected, and the greater part of the strand might have been long since in meadow, which would have added some thousands a-year to Lord Fitzwilliam’s and Mr. Vernon’s rent-rolls.”

Two-thirds of a century have passed since the above was written, and the two strands are still unreclaimed, waiting, we suppose, for the great Dublin Main Drainage Scheme. With the exception of a little hole-and-corner estuary at Ballybough Bridge, the great tract of strand extending from Fairview to Sutton, inclusive of the North Bull proper, remains a wild waste, covered with a few feet of shallow water when the tide ebbs, and a barren and ugly strand when the water recedes. Here are thousands of acres that might be reclaimed and made smiling acres, blooming orchards, squares of marine residences and parks. By the aid of irrigation, warping, and the utilization of sewage, the sea can be beaten back, the Liffey freed from pollution, the food of the people increased, and the public health established.

#### IRISH SUBJECTS AT THE BRITISH ASSOCIATION.

In the Geological Section, and in the Department of Anthropology, the former having Professor Hull, F.R.S., as its Chairman, and the President of the latter during the readings we now notice being Sir William Wilde, several highly interesting papers came under discussion. We regret that our space does not afford their reproduction, but from time to time we may revert to them.

The papers, “*The Age and Mode of Formation of Lough Neagh*,” by Mr. E. T. Hardman, F.G.S.; “*A Glimpse of Prehistoric Times in the North of Ireland*,” by W. J. Knowles; “*Remarks upon Irish Crannogs and their Contents*,” by Mr. W. F. Wakeman (the discovery of which belongs to Sir William Wilde); “*On the Character and Distribution of Rudely-worked Flints in the Counties Antrim and Down*,” by Mr. W. Gray, M.R.I.A.; “*On the Mosses of the North of Ireland*,” by Mr. S. A. Stewart; “*On an Age of Colossi, illustrated by Photographs and Drawings of the Colossi extant in Britain and Ireland*,” and “*On Natural Mythology and some of the Incentives to its Adoption in Britain and Ireland*,” by Mr. J. S. Phene, F.S.A., are among some of a variety of papers of a cognate character—ones that possess great attraction for Irish readers.

Two papers of a local character, but withal interesting and useful, were read—one in the Mathematical and Physical Sciences Section by Mr. John Smyth, A.M., “*Banbridge Meteorology*,” and the other in the Mechanical Section by Mr. Neville, C.E., “*On the Means adopted for the Improvement of the Navigable Channel of Dnndalk*. Professor Hull’s paper “*On the Progress of the Geological Survey of Ireland*” is a paper that may hereafter claim particular notice. The following local geological papers were useful contributions, and add something to the history of the science:—“*On Geological Sections in the County Down*,” by Mr. Hardman; “*On the Discovery of Microzoa in Irish Flints*,” by Mr. Joseph Wright; “*New Localities of Upper Boulder Clay in Ireland*,” by Mr. Hardman; “*On the Occurrence of the Middle Lias at Ballycastle*,” by Mr. G. Langtry, and Professor Thompson’s paper “*On the Jointed Prismatic Structure of the Giant’s Causeway*.” The town, harbour, docks, and other matters in the environs of Belfast furnished subject matter for special papers, some of which were ably treated; and if we have failed to particularise them it is not from any wish of doing an injustice to the authors. As we have remarked elsewhere, Ireland in general, and Belfast in particular, have no reason to feel ashamed of the native exhibition of intellect in the several departments of the Belfast Congress of the British Association.



## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

NOVO NOSTER-STREET—(Third Visit.)

RETURNING to the locality of our late visit, the "Oldest Inhabitant" resumed his recollections.

"I promised, Mr. O'Flanagan, to give you some further details of forgotten matters connected with this street. In the year of 1829 the first volume of a work was printed by Joseph Blundell, of 187 Great Lying-in-street, entitled "The Recollections of Skeffington Gibbon, from 1796 to the present year 1829; being an Epitome of the Lives and Characters of the Nobility and Gentry of Roscommon; the Genealogy of those who are Descended from the Kings of Connaught; and a Memoir of the late Madame O'Connor Don." This was a long title, but the volume contains many strange and astounding revelations. I may add that the work, shortly after publication, was suppressed by being bought up and the copies taken back from the market. A number of wealthy and professional persons in this city as well as in the Province of Connaught, had good reasons, it was believed, for wishing the work withdrawn from circulation, and the author silenced. The second volume, though promised, never appeared, and the first is now very scarce, and only to be found in private collections. The printer, Joseph Blundell, was, I believe, a much-respected tradesman, and after retiring from the printing business, I believe he carried on for some years the Phoenix Hotel in D'Olier-street. A goodly portion of the work is devoted to details of the sufferings and vicissitudes of Madame O'Connor Don, her cruel treatment by her own kindred, and the agony which she suffered at the hands of lawyers, doctors, and attorneys, who appear to have conspired to fleece her of her property, and, under professions of friendship, expedite her ruin and death. The whole particulars are too lengthy to recount to you, but one French Kelly and his brother-in-law, William Davis, figure conspicuously in the transactions *in re* Madame O'Connor during her residence in Connaught and Dublin. French Kelly is spoken of as the last that should disgrace the list of attorneys' clerks, and Madame O'Connor Don is reported as saying that he and his wife followed her to Strokestown, in the County of Roscommon, and that feeling for their great poverty, she ordered her door to be opened to them, not thinking they would have the impudence to stop more than a night, but they soon made themselves masters, and Madame O'Connor was only a lodger in the house for which she paid rent and taxes. Her boxes were broken open, and family and estate papers extracted, and in Dublin £500 was raised in her name from the Most Rev. Dr. Troy, Catholic Archbishop. Kelly got himself sworn as an attorney after this, and shortly afterwards a bill of costs was presented to Madame O'Connor, to the amount of £2,000. What nice and humane friends! William Davis, under the pretence of assisting the aged lady, and defeating the roguish intentions of his brother-in-law, wound himself into her confidence, and extracting large sums he commenced the business of wine merchant in Gardiner-street, failed, and called a meeting of his creditors, but during Madame O'Connor's life not a penny was forthcoming to her.

"I will now let Mr. Skeffington Gibbon tell in his own words the transactions that hinge to this locality. 'Mr. William Davis was maternally allied to the unhappy woman, who in her old age, was a prey to various annoyances and gross impostures; and, to convince

his kinswoman of his attachment to her person, Mr. Davis proposed a comfortable lodging which he considered would suit her. To this, the weak woman assented. This was the furnished upper part of a house 4 or 5, kept by an attorney of the name of Webber in Novo Noster-place. We all know that Novo Noster-place is situated at the lower end of Novo Noster-street in the City of Dublin, and within one door of the straggling end of Gandon-street, built upon that low swamp stolen by degrees and the assiduity of some efficient port surveyors or civic and turtle aldermen, from the rolling waves of the ocean. The back of Summer-hill is inundated during the winter and the chief part of the spring of the year; not only this, the front of the houses looked into a fulsome pool of stagnant mire, and a common dairyman's cow-yard, in which, to add to its diversified attractions, were a few amorous and squeaking goats, and one or two vicious and ungovernable donkeys, besides the continual growl of a half-starved and filthy watch-dog; the rare view was somewhat more amusing, and better calculated to enliven and rouse the drowsy nerves of a religious, disconsolate, and persecuted old woman of eighty-four. The back drawingroom was metamorphosed into a bedchamber for the accommodation of the superannuated Queen of the great O'Connor Don of Clonalis Castle in the County Roscommon. Any person acquainted with the localities of the unfinished end of Novo Noster-street, know that I do not exaggerate when I say that the waste space (which forms no enchanting vista) at the back of the few houses in Novo Noster-place is, without exception, one of the most riotous, obscene, and disorderly districts (except the notorious principality of the *Great Mogul*, well-known in our police reports as Mud Island) in the vicinity of the Irish metropolis. A row of filthy huts was joined to the splendid chamber selected for the happy repose of the amiable and highly-accomplished Catherine O'Kelly, the widow of a gentleman by birth, urbanity, and education, with the small patrimony that rapacious edicts, sequestrations, proscriptions, sanguinary revolutions and rapine left. Here was Madame O'Connor Don lodged by Mr. Davis, who we might suppose had no mercenary views in a neighbourhood surrounded with sweeps, tinkers, and various receptacles for women of ill fame, who when the morning star threw light on their abandoned infamy, took refuge in the abominable cells with which Lower Novo Noster-street, and the vicinity of Aldborough House abounds. O! what a neighbourhood selected for the residence of the nominal Irish Queen. Her guardians of course were interested for her longevity, and in supporting her high birth and the dignity due to her illustrious ancestors.'

"The picture which Skeffington Gibbon drew of the lower end of this street was not in any way exaggerated, and it was very applicable to the 'Diamond' locality, which, no doubt, he had in his mind's eye as well as that portion which I alluded to on our last visit, colonised by sweeps and tinkers. What extremes did not this street present early in the present century! Wealth and intellect at one end, and want and ignorance, if not worse, at the other. The lower class hanging on to the tail of the higher, or *vice versa*. While Madame O'Connor Don resided in her obscure lodgings in Novo Noster-place she had, notwithstanding her miserable surroundings, many illustrious and influential visitors. Amongst the list were the Earl and Countess of Roscommon, Viscount and the Hon. Miss Dillon, of Fitzroy-square, London, who were then in Ireland; the Countess D'Alton Begg, of Mount D'Alton, in the Co. Westmeath; Lady Mount Sandford and Miss Oliver, the Catholic Archbishops of Dublin and Tuam, the Catholic Archbishops of Elphin and Killala; the Dowager Lady Hartland, and the Hon. General Mahon; the Misses Cheevers and Fallon, of St. Brandon; Mrs. and Miss Dillon Hearne, of Hearnestbrook, in Galway; the O'Connors, of Ballinagare, Mount Druid, and Tomona; Mrs.

Henry French, of Clonaquin House, and Miss Moore; Mrs. and the Misses Grace, of Mantua House; Mrs. Spaight, and Mrs. Fairclough, of Clare; Mrs. and Miss French, of Rocksavage; Mrs. and Miss Dillon, of Roebuck; Mrs. O'Shea, Mrs. Colonel O'Moore, Major, Mrs., and Miss Nugent, Mrs. General Taylor, Mrs. Palles, Mrs. O'Moore Farrell, of Ballina; Mrs. Nangle, Miss Cusack, Mrs. Lee, Mrs. Hilles, Miss O'Neil, Dr. and Mrs. Harkan, of Sackville-street, and the Misses Egan. Besides her own immediate kindred, the Kellys, of Tycoola, Turrook, Cargins, Screggs, and several others, there was Lady Crofton, of Sligo; Mrs. Mahon, of Annaduff; Mrs. Lyster, of Newpark, and the Hon. Mrs. Butler. You see, sir, Novo Noster-place witnessed many strange faces and characters in its time.

"After leaving Novo Noster-place by the advice of her friends, Madame O'Connor Don had apartments taken for her at 40 Mary-street. To this house her furniture and effects were moved in August or September, 1813, where she lived until February, 1814, when she suddenly expired. When the old lady was about leaving Novo Noster-place, Webber, her attorney landlord, who lived in the under part of the house, insisted that 'Connaught Madame' (as he called her) should not quit the house until he got a quarter's rent in advance. The agreement was to pay quarterly, and the agreement was made for the old lady between William Davis (before alluded to) and Webber. It was believed that Webber was a nephew or kinsman of Luke White, the opulent stationer of Dame-street and Luttrellstown. Dr. Harkan was Madame O'Connor's medical adviser in general, but some dispute on the head of money transactions occurred to ruffle the friendship between the doctor and patient. Madame refused, it is stated, to join in a bond for £500. A Dr. Sheridan, of Dominick-street, prescribed for the poor old lady in her few last days.

"Mr. Skeffington Gibbon says that Madame O'Connor's faithful maid, Hogan, and the other servant found her dead in bed about nine o'clock in the morning, which was the usual hour to go into her bedroom. Archbishop Troy was sent for immediately, as it was understood she had willed her property to him for charitable purposes. His lordship locked all her trunks, plate, papers, &c., but on French Kelly presenting a will made, as he insinuated, in his favour in 1811, Bishop Troy came with him to Madame O'Connor's apartments and handed him all the keys, papers, and property. This was a most injudicious proceeding. French Kelly ordered the remains of the old lady out of the bedroom, and locking himself up for some time, obtained possession of her plate, private letters, and family papers. I must refer you, sir, to Mr. Skeffington's volume or the newspapers of the period, for the account of the trial that followed for the possession of the estate. The examination of the witnesses and the speeches of the counsel are worth perusal. Many nefarious transactions were unveiled, and finally rogues and barefaced impostors were discomfited in their attempt to possess themselves of the property of others. The drama neither begun nor ended in Novo Noster-place, but I thought it would be not amiss to bring back again some glimpses of the past, and tell a little of some strange doings unremembered by the present generation.

"Since our last visit here I have recollected a few more particulars about Professor Von Feinaigle, his school associates and pupils. Some obliging friends have also furnished me with further particulars, some of which had escaped my memory. These will furnish a sequel to what I have already related to you about Novo Noster-street. A short morning visit on some day next week will bring my story of this locality for the present to an end."

Turning homewards, we made the appointment with the "Oldest Inhabitant," which we have no doubt, if he lives, he will keep.



## SANITARY LEGISLATION.

At the meeting of the British Association at Belfast, in Section F, "Economy and Social Statistics," Dr. Grimshaw read a paper entitled "Sanitary Legislation and Organisation." In the course of his remarks he stated that—

Although the last Parliament was not so eventful in sanitary legislation as many sanguine sanitarians had anticipated, yet, notwithstanding the extreme hurry of public business, and the difficulties which a new Ministry had to deal with, a considerable advance was made in sanitary legislation during the session by the passing of the Public Health (Ireland) Act, the Sanitary Laws Amendment Bill, the Vaccination Amendment Acts, and the Registration of Births and Deaths Amendment Act, besides the advantage likely to accrue from the report of the select committee on the Adulteration Act of 1872, and the passing of the new standing orders with regard to the construction of dwellings of the working classes, and the construction of works for public companies. Her Majesty's Ministers had announced their intention of bringing in further measures to amend the sanitary laws of both Great Britain and Ireland at no very remote date. The requirements of sanitary legislation appeared to him to be—1st, a codification, consolidation, and amendment of existing laws; 2ndly, convenient areas for administration, with easily workable sub-districts; 3rdly, uniform authorities without clashing of jurisdiction; 4thly, a complete executive organisation; 5thly, constant supervision of the central authority; and 6thly, security for a certain amount of independence for the local officers of the local authorities. Codification had already been distinctly promised by Government. Lawyers looked upon codification as one of the most difficult branches of legislation, but he was of opinion that sanitary law might be more easily codified than any other, its terms being susceptible of very considerable accuracy of definition. Sanitary legislation was generally spasmodic—undertaken under the influence of panic. The Sanitary Act of 1866 was got up in a hurry to meet the cholera epidemic of that year, and the result was that the measure was confused and imperfect. It was permissive, and for practical purposes nearly useless; but it laid down many useful principles, and must be looked on as the backbone of future sanitary legislation. Several amendment acts were passed, but they were useless until the Public Health Act of 1872, which made action under the Sanitary Acts compulsory on local authorities; but owing to the confused state of the laws, the want of proper power of control on the part of the central authority and the ignorance, parsimony and apathy of local authorities, that act broke down almost completely. A similar act had now been passed for Ireland, but it was vastly inferior to its English prototype. The amendments of sanitary law which should be introduced into any complete code were—First, general laws with regard to the construction of dwellings. Houses at present might in the majority of places be built in any way the owner pleases. This was not the case, however, in Belfast, which, he might mention, was the only town in Ireland that had a building act, and it was so good that with slight modifications it might be made of general application. Secondly, there should be introduced into the code an amendment of the laws respecting food and drink. Thirdly, general laws regarding markets and slaughter-houses; and, Fourthly, laws with regard to the keeping of animals to be used as food or in the production of food. The areas which suggested themselves in the first instance as suitable sanitary districts, were those which were in use for other purposes, but the attempt to make use of those local divisions had proved most disastrous in England, in consequence of the confusion produced by the variety of areas for different local purposes. One of the difficulties arising from want of uniformity of area was a conflict in the jurisdiction of the authorities. It would be almost equivalent to a revolution, to propose to uproot old county, parish, and city boundaries, and he thought it could be done without any such radical measure. United districts having been decided upon, the sanitary authorities must be elected by the various districts. There were two ways in which the governing body for sanitary purposes might be elected, namely, either by the direct vote of the ratepayers or by a joint board formed of representatives of the governing bodies of the united districts. He believed that for some time to come, the latter would be the most practical way of constituting the authorities. These authorities should also include a certain number of *ex-officio* members, and eminent engineers and medical men. There should be a complete executive organisation, consisting of the central authority, the medical adviser of the central

authority, inspecting medical officers of health, the superintendent medical officer of health, local medical officers of health, engineering staff, inspector of nuisances, and analysts. All the inspecting officers should be appointed and paid by the State. All the local officers should be appointed by the local authorities, but with the consent of the central authority, and should be paid partly by the local rates and partly by the State, as at present, or (which he would prefer) the whole service for the United Kingdom should be made a Public Health Civil Service of the State. The independence of the local officers would be amply secured by the constant supervision, and the arrangement for payment and appointment. The security for the independence of those officers was of more importance than most people thought. It might not unfrequently happen that the offender against sanitary law would be a member of the local authority.

Sir George Campbell said the paper was a useful and practical one, but he thought Dr. Grimshaw, in proposing the establishment of a great sanitary army independent of the local authority, went much too far. He did not think we were yet prepared to be governed by sanitary despotism or sanitary doctors. They ought not to go too far to entail the liberty of the subject and prescribe to every man how big his house must be and what must be its shape. They must, also, not claim too high a status for sanitary science. It was yet in an embryo state. He did not think we had yet come to understand in the slightest degree the origin of disease or the means of preventing it. We were yet groping our way. We had made useful beginnings, and he believed that if the professors of sanitary science would only assume a sufficiently humble and moderate tone they would carry the feeling of the population of the country with them. He had observed both in this country and in others a disposition on the part of the professors of sanitary science to go too far and too fast, and to claim for themselves the position of professors of an almost infallible science. It was stated by people of limited experience that cholera was preventible; but in reality we knew nothing about it. He had lived in countries where it abounded, and had noticed for many years the course of cholera. We knew that cleanliness and attention to some of the primary sanitary laws were to a certain extent beneficial against all diseases, but we had not yet reduced sanitary science to the condition of an exact science. We must wait a longer time before we come to that, and in the meanwhile be content with slow and moderate progress.

Mr. Hart, as one of the Sanitary Committee of the Belfast Town Council, said he had paid strict attention to all that had been laid down by the Town Council upon this subject. There were in Belfast some difficulties connected with it, which he thought they should avoid increasing. He thought the Corporation within its own boundaries should be the proper sanitary authority. In Belfast, the Corporation had a very good sanitary staff who did their business remarkably well. They were neither medical men nor engineers. The reason why they had no engineers was, that engineers, when they did employ them, always went to too great lengths in submitting plans which were far too expensive. They submitted a plan for the removal of the sewage nuisance which would cost £25,000 or £30,000, but in his opinion £25,000 would do the thing very much better. He had no faith in the civil engineers with regard to the purification of the river at all. They generally proposed to take the sewage matter out of the river. He thought it should not be taken out of it, but kept in it; but that the centre of the river should be deepened and smoothly flagged, so that the sewage might make the nearest and best escape to the sea. The Blackstaff, for instance, had been greatly improved because the escape of the sewage had been facilitated. In Leeds they had gone to a greater perfection than anywhere else in getting rid of an enormous quantity of deleterious refuse matter from the mills, of which there was vastly more there than in Belfast. They did it by giving a smooth egg-shaped bottom to the centre of the river.

Mr. Fellows was of opinion that manufacturers of all kinds should get rid of their own refuse, and not pollute rivers.

Mr. Senior thought there was some fear of being over-governed by sanitary legislation. Engineers and medical men were very good in their way, but he thought that it was really practical independent men that were wanted. They would never accomplish all that was needed until they could send men round to inspect houses who should have power, if they found a house in an unsanitary condition, to order it to be properly cleansed. He would also suggest that any ratepayer finding the Sanitary Act not carried out, should be at liberty to call the attention of the Local Government Board to it, who should then bring some power to bear upon it.

Mr. Botley stated that in consequence of the sanitary improvements effected at Salisbury, the death-rate had fallen from 27 in 1,000 to 16 in 1,000.

Dr. Cameron referred to the bad condition of the water supply in many country towns. The water drunk by the people of Waterford he had found to contain actually a larger quantity of injurious matter than the sewage of Dublin; but it was now about to be remedied. He was of opinion that some external pressure was necessary to compel municipal authorities in general to carry out sanitary law.

Manockjee Cursetjee, High Sheriff of Bombay, agreed with the observations of Sir George Campbell as to the limited extent of our knowledge of the origin of disease, but bore testimony to the improvement produced in Bombay by sanitary reforms.

Mr. M'Mordie was opposed to compulsory legislation, and thought it better that efforts should be applied to the education of the people so that they might voluntarily adopt sanitary arrangements. He did not believe in making people cleanly any more than in making them moral by Act of Parliament.

Dr. Farr said the great question of compulsion was well worthy of attention. The Legislature, by using compulsion, was performing one of its most sacred duties. The instances were numerous and constant in which sanitary reforms produced direct beneficial results. Complaints had been made of the interference of doctors, but it must be remembered that in exerting themselves to procure legislation to prevent disease they were acting against the interests of their own pockets.

Dr. Grimshaw, in concluding the discussion, observed that some gentlemen who had objected to compulsory sanitary legislation, seemed to have overlooked the fact, that the Sanitary Act recently passed by Parliament, and which would come into force within 60 days, was compulsory.

## THE ROCK OF CASHEL.

THE clerk of works appointed to superintend the preservative process intended to be carried out on the above historic monument, writes in reply to the strictures of the Rev. James Graves, published in our last issue. He states the following are the instructions which he has received from the Board of Works, through their Architect, James H. Owen, Esq. :—

In the memoranda accompanying the specification, the first clause runs thus :—"The chief object in the work is 'preservation.'" "Restoration" is only to be attempted when it is required in order to preserve. And in another memoranda, dated 26th May, 1874—Bear in mind in all that you do that the object is not to "restore," but only to "maintain," and that no "re-building," or "taking down and re-building" is to be done, but what is absolutely necessary for the "preservation" of what remains. Please bear this in mind, and study in each particular case how to do what is actually necessary for preservation and maintenance with the least possible "restoration" or re-building.

I am very sorry that the rev. gentleman should so far have misunderstood the conversation he and I had at the Rock, as to lead the public to believe from his letter that we were about to "restore" the buildings.

To the above statement Mr. Graves observes :—

There is no intimation given thereby that the works of restoration at Cashel enumerated by me have been abandoned. I did not in the least misunderstand Mr. Read, and never made any statement as to the works of preservation which he is instructed to carry out, and to which I did not and do not make exception; but it is evident that, as even for these works of preservation, rebuilding and taking down and rebuilding are contemplated, the supervision of a properly qualified inspector is required to prevent possible irreparable injury to the ancient buildings to be so treated.

No contradiction, however, is given to my enumeration of the works of pure restoration, and this I regret, conceiving that it places the Board of Works in a very false position relative to the answers given to the questions lately asked in Parliament.

Referring to the information given to me by Mr. Read, I may state that when I asked what authority they had for rebuilding the bishop's castle or palace, he showed me a wretched timber model, not made to scale, or in any way preserving more than the general form of the fallen tower, which I recollect to have seen in its perfect state. This model, it appears, was made years ago by some person at Cashel, and appears to be the only authority for this particular restoration.



As to the vicar's hall, I was informed that not only was it to be restored, but roofed in, and fitted up for the residence of a caretaker and the accommodation of pic-nic parties!

If National Monuments are to be thus restored and preserved, it is a question if it would not be far more preferable to let them crumble slowly into dust. We hope, however, with the proverb, that "all is not lost that is in danger."

#### NEW PRESBYTERIAN CHURCH, STRABANE.

A COMPETITION for a New Church in Strabane having been recently invited, designs were submitted by nine competitors. The committee decided in favour of one by Mr. Kennedy, of London. Our illustration is the perspective view of design sent in by Mr. A. W. Robinson. The church was designed, in accordance with conditions, to accommodate 400 persons, and to cost £4,000, including heating and lighting.

#### NEW SAMARITAN HOSPITAL, BELFAST.

THE foundation stone of this building has been laid. It will be situated on the Lisburn-road. The ceremony was performed by Professor Hodges, brother-in-law to the founder, the late Edward Benn, Esq.

The building will be in the Italian style, slightly modified, three stories high, faced with red bricks, with base course, window sills, strings, quoins, and other dressings of Dunganston freestone. There will be a bold block cornice to eaves, the upper member of which will be formed by the moulded metal eaves-gutter; the remainder of the cornice will be of stone. The central portions of the building will project slightly, and will be crowned with a pediment having raking cornice, to correspond with eaves cornice. The entrance doorway will be in this portion, and will have pilasters of freestone and columns of polished grey granite at sides, with carved caps and moulded bases. The arch to this doorway will be of stone, semicircular in form, moulded and carved. Over the doorway a niche will be formed to receive a statue of Mr. Benn; on the arch over which will be inscribed, 'Erected by Edward Benn, Esq., Gleuravel.' Underneath the second floor window sills the name of the hospital will be incised on a band of stone.

The accommodation on the ground floor will be vestibule, entrance-hall, with large waiting-room on one side, and consulting-room on the other; apothecary's-room, kitchen, scullery, wash-house, laundry, &c. The apartments on the first will be large dormitory, smaller dormitory, nurse's-room, operating-room (lighted from the roof), bathroom, lavatory, &c. The waiting-room and two large dormitories will be heated by Captain Galton's patent ventilating stoves.

The building is being erected by Messrs. Dixon and Co., of Clifton-street. Mr. Wm. Hastings is the architect.

#### THE EDUCATION OF ENGINEERS.

In the Mechanical Section at the Belfast Meeting Mr. Jeremiah Head read a very instructive paper on the above subject. Some of his observations are worthy of particular note, and will be quite in their place here.

It had been stated, he said, that in order to be a successful engineer one should be half a lawyer. He believed they were so mixed up in the question of contracts that an acquaintance with the main principles of law was indispensable to the avoidance of disputes. One of the most eminent engineers of the day—Sir William Armstrong—was brought up a lawyer, and only at quite a mature age that he forsook that profession to follow his own natural mechanical bent.

He recommended that a boy intended for the engineering profession should receive as good a general education as he was capable of assimilating until the age, say, of sixteen, and that he should then work as an operative mechanic in an engineering establishment of repute, and where there was a good system of progressive advancement through the several departments. At the age of twenty-one, instead of remaining perhaps for years simply as an improver in a drawing office, he would advise the young engineer to devote three years to a course of scientific studies, such as was obtainable at the Royal School of Mines, at Owens College, Manchester, and elsewhere. With an education so completed, generally, practically, and scientifically, the next six years devoted to actual practice in professional work ought to produce at the age of thirty as good an engineer as the capacity of the man would admit of.

No doubt the above would be a good preparatory course, but such a course is not at present available for all aspirants.

#### CIVIC LYRICS.—No. LXVIII.

##### OUR LIVING DEAD MEN.

Bustle, bubble, toil and trouble  
With white, and black, and red men;  
The market-place and farm stubble  
Is full of living dead men.

Hosts of City Drainage Schemes,  
That often have misled men,  
Still rife, as in the land of dreams,  
The place for living dead men.

Hookhim, Nailhim, Grab and Co.,  
All famous firms of dread men,  
Are now reporting ebb and flow  
For all our lively dead men.

Mighty Nero whilom fiddled,  
And while some feather-bed men  
Cackled loud, old Rome was riddled  
To shame her living dead men.

How not to do the thing required  
Our well-paid and well-fed men  
In Dublin have that art acquired—  
It suits our living dead men.

Bubble, bubble, law costs double,  
The Council's go-ahead men,  
Do not mind the extra trouble—  
It helps the living dead men.

Water, water, wanton waste,  
Cry out our water-wed men;  
But wine, not water, suits the taste  
Of gouty living dead men.

Filth and fever still may kill  
Both high and lower bred men—  
It matters not what graves they fill  
Those civic living dead men.

Iron, concrete, grout and rubble,  
All hands to work and head-men;  
Two millions more will pay the trouble—  
Of Drainage staff and dead men.

CIVIS.

#### THE LATE SIR W. FAIRBAIRN, BART.

THIS distinguished engineer, who died at the advanced age of 85, a few days since, at Moor Park, Farnham, Surrey, was a native of Kelso, in Scotland, where he was born in 1789. He was the first or among the first to construct sea-going vessels of iron. He was also during his life constantly engaged in experimenting upon the qualities of iron, and did a vast deal to advance mechanical knowledge in the department of engineering. He was associated with Stephenson in some of his undertakings. He settled at Manchester early in the century, and established a manufactory there for the construction of locomotive engines and for other purposes. The establishment still continues. He was one of the founders and first members of the British Association. He was a member also of several learned societies at home and abroad, and the author of many works and papers on engineering science applied to iron for building and general purposes. He was

created a baronet in 1869, having previously obtained several honorary distinctions. The title devolved upon his eldest son Thomas, who has distinguished himself in questions connected with art.

#### THE O'CONNELL MONUMENT AND CENTENARY.

It was suggested first in this journal, two or three years since, that, as the O'Connell Monument in the hands of Mr. Foley was likely to remain unfinished for a considerable period, it would be a graceful act on the part of his admirers and the O'Connell Monument Committee to inaugurate the unveiling of the testimonial on the centenary of his birth in 1875, and that, therefore, they ought to take measures to secure its completion by that time.

At a recent meeting of the O'Connell Monument Committee, Alderman M'Swiney (Lord Mayor elect) presiding, it was resolved to convey, through the secretary, the feelings of the committee and the public to Mr. Foley on the urgent necessity of completing the statue in accordance with his agreement, and also in view of the celebration of the one hundredth anniversary of the birth of the Great Agitator on the 6th of August, 1875. The statue is so long in hands that a great many people have forgotten that it was ever ordered, and it is not uncharitable to add that some of O'Connell's whilom admirers are more concerned about a statue to themselves.

[Since the above was in type, the public has heard with regret of the death of Mr. Foley. The monument, as a whole, remains, of course, unfinished, though advanced a good way towards completion.]

#### LIFFIANA.

THE purification of the Liffey is likely to be a matter of heavy cost, as well as costs legal and engineering. At a late meeting of the Corporation Mr. French moved the following resolutions:—

"That this committee recommend to the Town Council to request her Majesty's Government to issue a commission to an independent engineer of eminence, to examine and report on all plans submitted to him for the purification of the River Liffey.

"That all particulars of expenditure in connection with the Main Drainage, from the commencement of the scheme to the present, be printed and circulated among the members of the Council without delay, with full details, and the names of all parties who have received any moneys out of the funds of said committee, either as fees, personal expenses, or deputations."

Mr. Samuel Warren seconded the proposition *pro forma*.

Mr. Dennehy moved that the first paragraph be altered to read thus:—

"That the Council appoint three independent Irish engineers to examine and report upon all the plans placed before the Council, or any other plan that they may suggest for the simple purification of the River Liffey, and the abatement of the nuisance, and they be paid for their services a sum of £50 each, and that said engineers be requested to report to the committee of the whole house, having charge of this matter, within 14 days after such appointment."

Mr. Dennehy proposed to name Mr. Hassard, Mr. McCurdy, and Mr. Geoghegan, each of them to be paid £50. Finally, after some considerable discussion, the proposition to remit the selection of three engineers to a committee of the whole house was agreed to. A vote of thanks to Sir John Arnott was voted for his offer to cleanse the Liffey at his own expense.

A lot of cross purposes cropped up during the debate, showing plainly the state of feeling that existed on the Main Drainage and purification question past and present; and it was hinted by one of the members that very ugly rumours out of doors were heard, involving charges of misappropriation of money against the corporation. Nearly all





DESIGN submitted in Competition for Proposed New Church, SORRYHANE by H.W. Robinson

Photo Lith. Pim Bros. & Co. Dublin







the city knows that "jobbing" has been rife in the "Reformed Corporation" these last twenty years and upwards, and that it was anticipated that on the head of the big Main Drainage Scheme there would be some nice morsels of commission for the influential somebodies who manage to pull the wires in London and Dublin at the same time.

At a subsequent meeting of the Corporation, the following resolution *re* Main Drainage was passed:—

"That all particulars of expenditure and liabilities in connexion with the Main Drainage, from the commencement of the scheme to the present, be printed and circulated among the members of the Council without delay, with full details, and the names of all parties who have received any moneys out of the funds of said Committee, either as fees, personal expenses, or deputations."

At a meeting of the Committee of the "whole house," held upon Saturday, the letters of the engineers recently named were considered. Mr. Hassard not consenting to act, his place was supplied by Mr. Cotton. On Thursday next all the plans connected with the Liffey purification will be laid before the three engineers, at the City Hall, and they are to report upon that or suggest others of their own.

When and where will this snail's pace movement end—at, before, or after the elections?

We trust that the Citizens' Committee will not relax their efforts, and that the burgesses will do their duty next November.

## SANITARY AND OTHER NOTES.

**THE Tolka nuisance** is still unabated. At a meeting of the Guardians of the North Dublin Union, a letter was read from Mr. Boyle, secretary of the Public Health Committee, enclosing a copy of a report on the nuisance near Ballybough Bridge, which was submitted to them on the 18th inst. Mr. Boyle added—"Since then I have been to the place, and found that the offensive deposit has been almost entirely removed by the recent heavy rainfall; and, as the weather has become cool, and more rain than hitherto may be expected, I do not consider that during the present season further offensiveness need be apprehended from the Tolka at Ballybough." The report was to the effect that the nuisance almost entirely proceeded from the distillery and the paper mills. The remedy was to increase the scour of the river by contracting the waterway. Mr. Bentley said the letter appeared to be a very fair attempt to shelve the question. The report was referred to the Clontarf Township Commissioners for their consideration.

**KINGSTOWN.**—At a meeting of the Commissioners, a resolution was passed to proceed with the construction of certain sewerage works in Glenagary and Sandycove already decided upon, and a contract in part concluded with the Messrs. Sexton, the entire outlay to be £1,200, the sewerage to be part of the proposed general system for the township. Directions were given that advertisements should be inserted in the Dublin newspapers for plans for a proposed new town hall and courthouse, at a cost of about £10,000, expected to be borrowed under a provisional order of the Local Government Board, to be ratified by Parliament next session. A proposal to join the Dalkey township in carrying out a combined sewerage scheme was referred to a committee.

**BRAY.**—At a meeting of the Guardians of the Rathdown Union, a circular was received from the Local Government Board, stating that £13,960 had been assessed on the union valuation of Ireland for the expenses of the Cattle Plague Act of 1866, and that the proportion of this sum assessed on the Rathdown Union was £256. A sealed order was enclosed sanctioning the payment of this sum; also a request that the guardians should direct their bankers to pay over £256 to the Cattle Plague Act account in the Bank of Ireland. Several guardians expressed the opinion that the payment of this sum was a great hardship, and that it should be borne by Imperial taxation. The necessary order, however, was given. A report from the City Analyst was read on the deodorisation of the work-house sewage, a quantity of running water impregnated with quicklime, chloride of lime, &c., and cholomna, at a daily cost of 1s., being the chief features of the system recommended. The report

not having clearly explained how the waste deodorised water was to be disposed of, was referred back for explanation, also for an opinion as to its completely innocuous character; and, further, if this proposed system had been successfully carried out in other public establishments.

**DUNDALK.**—At the Board of Guardians, Mr. Nugent, R.O. reported that the nuisance in Whynn's-lane had become worse. The town commissioners took upon themselves to abate it, but instead of removing it, they had made it worse, the smell from the lane being now most offensive. Chairman—What are we to do? It is something awful to have such a state of things existing in a crowded locality in such hot weather. Mr. Sellars—We should have it removed at the cost of the Town Commissioners. Mr. McArdle—That would be the proper way. Chairman—Have the Town Commissioners done anything to abate it? Mr. Nugent—The Nuisance Inspector cleaned the stream, but it is *worse now than ever*. In fact the Town Inspector takes no trouble with any nuisance. There is a great deal of sickness in Dublin-street at present, and the smell from this lane can be found all through the upper part of the town. Nothing definite was done in the matter. [Dear, dirty Dundalk.]

## GAS NOTES.

**THE CITY GAS.**—It has been announced that Committee No. 1 Corporation met on Saturday. The Inspector of Public Lighting submitted his report of the tests made of the illuminating power of the gas supplied to the city during the week ended the 25th inst., shewing the average for the week to be 17.06 standard candles.

It would be satisfactory to know in what way the Inspector performs the task of "testing" the City lights. In another part of our issue we give place to a letter from Mr. James Kirby, on this important topic. We can safely state that on the 22nd ult., the illuminating power of the gas in the public lamps, in many parts of the city which we traversed was not even up to 4-candle standard! The Inspector bound himself when appointed to give his entire time to the duties of his office—we hope he is doing so.

**DUNDALK.**—In Dundalk the Town Inspector reported that on three nights recently the gas lamps were not lighted until nine o'clock—half-an-hour late for that period of the year. A commissioner remarked that the Gas company were paid for giving the ratepayers light, and they should be made to perform their contract.

## THE DEATH OF MR. W. H. BETTY.

At the ripe age of eighty-three Mr. Betty breathed his last on Monday, the 24th ult., at 37 Amptill-square, London. He was known early in the present century as the "Young Roscius," and only within the last few days before his death his name figured prominently in the Press. The *Athenæum*, in an article on "Belfast," past and present, mentioned, among other historic associations, some particulars about young Betty's early days upon the stage. The *Belfast News-Letter* copied the article, and a correspondent in same paper writes a notice to correct the inaccuracies as given in the *Athenæum*. Respecting the actor, who died on the very day the notice appeared, the Belfast correspondent writes—

Passing over some really graphic sketches of the early annals of this town, we come to the passage in which the writer in the *Athenæum* refers to "the 'Young Roscius,' Master Betty, of Shrewsbury, who, happening to see (in 1801) Mrs. Siddons play Elvira, in 'Pizarro,' at the Belfast Theatre, made known to his family his intention of 'dying if he was not allowed to become an actor.'" Now for the facts on which this bit of the imaginative has been founded. Most readers of the *News-Letter*, or at least those who take interest in the history of the stage, have frequently met in the columns of that paper sketches of the history of William H. W. Betty, son of an extensive linen bleacher of Lisburn, and where the "boy-player" resided until his twelfth year. Mrs. Betty was fond of theatricals, and during the engagement of Mrs. Siddons at the Belfast Theatre in July, 1802, she prevailed on her liege lord—whose ideas ran much more on the value of yard-wide and seven-eighths linen than on any scenes before the foot-lights—to take her and her son to see the great star perform the leading female character in "Pizarro." In the winter

season of that year John Owenson, father of Lady Morgan, had his company of strollers in Lisburn; and the Bettys, having formed the acquaintance of the manager, the juvenile was frequently taken "to see the play." Young Betty's taste for the stage, fostered as it was by his mother, grew into a passion; and on the 19th of August, 1803, he appeared, under the patronage of Manager Atkins, at the Belfast Theatre. Next year he went to London, and it was Charles James Fox, the great statesman, and not Tom Atkins—that hardly less famous lord of the huskin—who, in his own burly tones, exclaimed on seeing Betty perform in Drury-lane, "This lad exceeds Garrick!"

After a short but brilliant career, during which he appeared in several characters upon the London, Glasgow, and the provincial stages, Mr. Betty took his farewell benefit at Southampton in 1824, at the early age of 32. He was of very short stature—about 4 ft. 6 in., yet his ability secured his rise in 1805 from £50 to £100 a night.

In an obituary notice in the *London Daily Telegraph* of the 26th ult., William Henry West Betty is stated to be born in the Parish of St. Chad, Shrewsbury, on the 13th of September, 1791, and that his father was a physician of some eminence in Lisburn, and that his mother was the daughter of Mr. Stanton, a person of considerable property in the county of Worcester. We see, therefore, that inaccuracies have appeared about the actor, not only in the *Athenæum* but in other papers.

## "CAUTION?"

Set a quack to catch a quack.

Try Muldooner's "Nerve Elixir."  
All the nostrums sure it licks, sir;  
Though 'twas often limited,  
Nought on earth will ever beat it.  
Take one dose of this famed stuff, sir,  
(Though the smell is quite enough, sir),  
And you'll find—I'll say no further,  
Save that "Killing is no Murder."

Skinner's-row.

LARRY DRINGOOLE.

## PUBLIC HEALTH IN DUBLIN.

It is hardly to be expected that the sanitary condition of Dublin could improve of its own accord when local neglect is so apparent everywhere. The Registrar-General's Weekly Returns convey facts but little noticed. That of the week ending the 15th of August represents an annual mortality of 27 in every 1,000 of the population. The London death-rate was only 21; Glasgow was the same as Dublin, while Edinburgh was but 19. We hardly wonder at the death-rate of Glasgow when we consider its extent, trade, close wynds, courts, and alleys; but in the case of Dublin, so favourably situated in respect to country and sea breezes, it is a scandal that such a death-rate should be recorded. Of the 53 deaths from zymotic diseases registered in Dublin, no less than 30 were produced by scarlet fever. This is seven deaths more from the same cause than have been registered in any week since the Registration Act came into operation in 1864. Seven deaths resulted from fever, 4 typhoid or enteric, 1 cerebro-spinal, and 2 simple continued fever; measles, whooping-cough, diphtheria, and dysentery each caused 2 deaths; diarrhoea 4, erysipelas and infantile cholera 1 each. The fact that 16 children died from convulsions shows there is a want of parental care as well as other contributory causes, of bad milk and impure air. Fourteen persons died of pulmonary consumption. Sixty-nine of the persons whose deaths were registered during the week were under 5 years of age, and 37 were aged 60 and upwards, including 2 women stated to have been aged respectively 90 and 92 years. The births and deaths stand thus—93 boys and 102 girls were born, and 85 males and 75 females died—the four diseases most fatal being scarlatina, convulsions, consumption, and bronchitis. All combined gives a mortality of 164, including the districts of Rathmines, Donnybrook, Blackrock, and Kingstown. The Dublin District, according to the census of 1871, has a population of 314,663 persons.



## OXYGEN—LIMESTONE AND ITS FORMATION.

In a lecture given by Professor Odling in the Working Men's Institute, during the meeting of the British Association at Belfast, Professor Tyndall being in the chair, the able lecturer gave the history of the discovery of oxygen. After paying just tribute to Dr. Priestley, Professor Odling proceeded with his subject in affording information of great value to the working classes. In relation to limestone his remarks ought to possess some interest for building operatives. We give a portion:—

Oxygen was discovered by Dr. Priestley in this very month of August, 100 years ago—that is, in 1774—and it was in commemoration of his discovery of this substance that those large meetings to which he has referred were held in two of the largest towns in the United Kingdom—Leeds and Birmingham—and in Paris and America. To appreciate the discovery properly they should understand what was the state of chemical knowledge at the time, and what was the progress that succeeded it, and was consequent upon it.

Now, with the view of directing their attention to the state of chemical knowledge at the time immediately preceding Dr. Priestley's discovery, he would call their attention for a few moments to a substance with which in this neighbourhood they must be all familiar—he meant limestone, of which the Antrim mountains are largely constituted. It was known to most of them that when chalk or limestone was strongly heated in a kiln it became changed into a different substance, which was called quicklime, and this quicklime differed from the limestone or chalk from which it was produced in many particulars, and especially in this particular—that, whereas, if they wet limestone with water, no further change takes place; the limestone remains simply wet. But if they wet quicklime with water the lime quickly became very hot—much hotter, indeed, than boiling water. It crumbled to pieces, falling into dry powder. If this dry powder were further wetted with water, it formed a stiff paste, which ultimately dried up into a mass of dry material. In all these particulars, then, the quicklime produced from the limestone differs very materially from the original limestone.

Now, another property in which the quicklime differs from limestone is this, that quicklime is capable of being taken up by water, and of being dissolved by water, in much the same manner as sugar or salt is capable, only not to the same extent. In the conversion of limestone into lime there is one point of great importance and interest, and that is, that every 100 pounds of limestone furnishes only 56 pounds, little more than half its weight, of limestone. What were the 44 pounds which had thus gone and disappeared? Well, it was found that those 44 pounds out of every 100 pounds of limestone were not a solid matter, nor a liquid matter, but were a kind of aerial matter, a kind of matter comparable with our ordinary atmospheric air, and comparable with the kind of air discovered some fifteen or twenty years later by Dr. Priestley. It is characterised by the property of immediately extinguishing the flame of any burning substance introduced into it. Limestone and chalk were really bodies composed of quicklime united with this particular kind of air.

There was yet another way of getting this air, and that was by acting upon limestone or chalk with an acid. One of these acids was called sulphuric acid, or oil of vitriol; another was called muriatic acid, which was obtained by acting upon common salt with sulphuric acid; and there was another called nitric acid, which was made by acting upon nitre or saltpetre with sulphuric acid. The air or aerial body which was given off from limestone or chalk when acted upon either by water or acid is now called carbonic acid gas, and was discovered by Dr. Black in 1756. If, instead of acting upon marble or limestone

by an acid, they acted upon a metal—and more particularly upon the metals, zinc or iron—they got also an air or gas, which was, however, very different in its properties both from ordinary air and from the fixed or carbonic acid gas discovered by Dr. Black. This air, when brought into contact with a light, ignited itself, and produced deep brown fumes; it received at first the name of inflammable gas, afterwards changed to that of nitric acid gas, and was discovered in 1772. Thus, within a period of a few years they had three new kinds of air made known. Various notions arose from the discovery of these gases. One was the notion of the possibility of the existence of different kinds of aerial matter—the notion, in fact, of the aerial state as being common to atmospheric air, and to a great number of other kinds of air.

Previous to the discovery of these three gases the notion prevailed that all air was one and the same, which might, however, be effected in various ways by contamination. But this discovery established in its stead the notion of the aerial or gaseous state, in which atmospheric air was a most abundant air. Another notion that it established in men's minds was the conviction that the air in which they moved and breathed was a real form of matter or substance—that it was just as much a substance as was water or stone. They recognised that air had this materiality, that it was capable of being felt.

About 100 years before the discovery of these different kinds of air it had been made out by means of the barometer and by means of the air pumps, that air, in common with water and stone, had the characteristic property of heaviness; that it was a substance capable of being weighed. Being recognised in this way as a substance capable of being felt and weighed, it was, in a certain vague sort of way, recognised as being material. But this was not fully brought home to men's minds; it was not unreservedly acknowledged to be a material substance, as water or stone, until the discovery of these kinds of air, differing from it in many particulars, and differing from it most remarkably in degree of heaviness or weight. For instance, we find that nitrous air has much the same degree of heaviness as ordinary atmospheric air; but the fixed or carbonic acid gas is much heavier, being, indeed, one and a-half times heavier. Oxygen, as he had already said, was characterised by the power of enabling bodies to burn in it brilliantly. According to the old belief, all bodies were reducible to four elements—earth, air, fire, and water. The discovery of oxygen, however, enabled them to ascertain the nature of those four elements, and, more particularly, the nature of atmospheric air. Ordinary atmospheric air had been regarded previously as one single substance, not as a mixed substance at all, but as a perfectly elementary form of matter, entering into constitution with many other forms of matter, but not of itself being constituted of any other forms of matter.

Now, the discovery of the composition of air was mainly due to a French chemist, who discovered it immediately after the discovery of oxygen by Dr. Priestley, and it was a consequence of the latter discovery. He found air to consist of four-fifths of nitrogen and one-fifth of oxygen. Prior to the discovery of oxygen, fire was looked upon in this way—all combustible bodies were considered to be compounds of elementary fire. It was then discovered that fire was not a substance at all, but only a manifestation of light and heat attending upon the combustion of one substance with another—a combustion of different substances with this oxygen of Priestley's. Water was also discovered to be a compound of oxygen and hydrogen.

With regard to earth, we should not be far wrong if we said that the crust of the earth, as we are acquainted with it, is composed, one-half of its weight of the kind of air or gas which Dr. Priestley discovered by heating a few grains of red precipitate with a burning glass, and which he knew as oxygen. Five or six discoveries attended the discovery of oxygen.

In addition to making known to us the composition of earth and air and water, and the nature of fire, it led chemists to the conception of the idea of chemical combination; it also led to the nature of chemical change—all those changes by which one kind of body is converted into another. It explained not only the nature of burning, but also the nature of decay and respiration and food consumption, the deterioration of the air by living beings, and, moreover, the means by which that deterioration is renovated. It explained the nature of the sources from which all heat is derived, of combustion, and, further, the amount of absence of heat which results from the purification of the atmosphere by growing plants.

He had already detained them too long, and he would bring the lecture now to a conclusion, and request that so far as he had satisfied them that this discovery of Dr. Priestley's was really a most important discovery in respect of these particular notions which he had brought under their attention—namely, the notion of the composition of earth and water and air, and the nature of fire, in so far they would trust him for the present, and believe that those other conceptions to which, had he had time, he intended to draw their attention, were not less fruitful and important than those of which he had spoken. If they believed so, they would go away with the notion that the honour paid three weeks ago to Dr. Priestley's memory was not undeserved or numerated by the discovery of this important gas, manifesting such various changes, entering into the constitution of such divers bodies, and forming one-half of the entire body of the whole world as we are acquainted with it.

## TINTINGS OF THE TIMES.

"Praised by some, blamed by others, I make haste to laugh at everything, for fear of being obliged to weep."—*Barber of Seville*.

PERHAPS the most amusing episode in "Don Quixote" is that in which *Sancho Panza* is prevented from satisfying his appetite, when seated at the dinner-table, by the officious zeal of his inexorable physician.

There are passages in my life when I have been forcibly reminded of the scene so vividly depicted by CERVANTES. The passages to which I allude are on the briny sea. You embark, and, after injuring your shins over articles provided for the purpose by the authorities, you manage somehow to stumble into the "aft" cabin, where a repast is spread and the guests assembled. The steward displays his nimbleness in attending to the wants of the passengers, bumping various portions of his anatomy against an astonishing number of things in so doing. After spreading your napkin over your knees you prepare to satisfy nature's curious calls. When lo! up rises Neptune with that awful trident of his,—the table lurches at his touch, and we stagger to our cabins to whie away the time in the manner peculiar to landmen. Perhaps the loss caused by Neptune's eccentric behaviour is not so great after all, for the viands on board the Holy-head boats are not always of a first-rate description, and would certainly not in this instance have tempted me under a favourable wind. I am innocent of epicurean taste, and am not much given to the pleasures of the table, even when the pleasures of the table are given to me; but this I will say, that I prefer a hot dinner to one in a tepid state; and, as the latter was the condition in which the dishes were served, and a strong atmospheric evidence of engine-room was now and then wafted across the cabin, I went on deck to console myself with a weed and a few pages of CARLYLE.

There, as it happened, I came across one of these select luncheon parties, who, to save a few shillings below, bring their edibles on board with them, but take places in the saloon of the boat to keep up appearances. The party in question was composed of a gentleman and two ladies, who became horribly confused when I innocently walked in amongst them—innocently, I say, and so it was, for ever since my juvenile days I had a happy knack of going where I was not wanted, a talent which my preceptor used to show his appreciation of by speaking to me "as a friend," and punctuating his friendly remarks with a ruler. Then there was a great bundling up of sandwiches and a hiding of a bottle, of that class in which "Hollands" are usually kept, in the folds of a voluminous "Gamp." The gentleman narrowly



escaped suffocation in a convulsive effort to dispose of a mouthful of ham, and appeared struck with the excessive number of the stars; whilst the ladies suddenly became immersed in *Bradshaw's Guide*, by which I have no doubt they must be highly edified, seeing that it was, as I subsequently discovered, upside down!

I remained on deck for the rest of the night, preferring infinitely the cool sea breeze and the spacious deck to the heated air of the cabin and the scanty accommodation afforded by the rickety shelves called berths. The night was so truly beautiful, and the morning at day-break disclosed such a marvellous effect in color, that I am almost tempted into a description of it. But no, I am aware of the fate of such in hundreds of pages which I have skipped in my novel-reading days, and, after all, is not the fate a just one? for what is the use of using hackneyed phrases and crooked threadbare adjectives in attempting to describe what the most brilliant pencil can but feebly suggest? So I will just, with your permission, stand out of the light, and reverentially uncover my head before the majesty of Dawn.

The first evidence that we had of land was the South Stack light, which is composed of twenty-one lamps, with powerful reflectors, exhibited at an elevation of 212 ft. above high-water mark; then, as the morning advanced, I perceived *Pen-Caer-Gybi*, or Holyhead mountain, on the right hand, while on the left I obtained a good view of the harbour and the weather-beaten rocks of the rugged iron-bound coast. While I was contemplating the scene we passed the Holyhead Breakwater, with its ruby signal, the construction of which is said to have cost over half a million. The pier, which is 1,000 ft. in length, displays at its extremity a light-house 50 ft. in height, containing a white light; as we passed this, the welcome low-lying lights of Holyhead loomed brightly through the uncertain dusk, and a few minutes later the paddle-box grated harshly against the berth's side, and the joyful words "We're thro'" were followed by the bustle and fuss inseparable from disembarkation. For the convenience of those who intended prosecuting their journey without delay, a tidal train was in waiting, into which the passengers were bundled in that unceremoniously business-like way peculiar to the officials of the London and North Western Railway. For my part I intended to break the journey. As the sun was just rising I preferred a stroll round the town to a few hours in a bed the airing of which was open to suspicion.

The greater portion of the town is situated on the north side of the harbour, under the shelter of *Pen-Caer Gybi*, before referred to, which rises to the height of 700 ft. above the level of the sea. The roads are macadamised and paved with Bangor slate, the streets lighted with gas, while pipe-clayed door-steps, bruisish knockers, and an air of scrupulous cleanliness goes far to prove that the inhabitants are a thrifty, hard-working people.

Holyhead possesses an assembly-rooms and public baths, a churchyard,—which caused me a pang as I thought of Killester,—over every grave in which, a neatly carved headstone is erected, with inscriptions in Welsh and English, the whole being enclosed by an ancient Roman wall 6 ft. in thickness. There is also a capacious market, and a population of 6,193, with half a member of Parliament, the remaining portion of that functionary being allotted to Beaumaris. There are two monuments in the town—one an obelisk, erected on the rocks south of the harbour, in memory of a certain Captain Skinner, who was drowned in 1833, and who, it appears, had been for many years commander of one of the mail service packets; the other stands on the pier, and is a sort of abortive imitation of *L'Arc de Triomphe*, commemorative of the visit of GEORGE IV., in 1821, bearing an appropriate inscription in Welsh and Latin. This arch is built of a carboniferous limestone, abounding with fossil remains, and capable of taking a high polish. It is called *Mona marble*, and is procured from the quarries at Penmon, near Beaumaris, which were opened during the erection of the Menai Tubular Bridge for the purpose of securing the stone which was used in the construction of the towers and abutments of that colossal structure.

While on the pier I came across a pair of Dubliners, who were regarding the ocean pathetically and whistling "The Exile of Erin." They told me that they were "enjoying a short holiday in Wales"—a statement in which there was a certain amount of truth, as the "holiday" was unquestionably brief, seeing that they returned to their dear native town by the first boat that left Holyhead after their arrival,\* going home quite satisfied with their four hours "holiday in Wales."

As yet no newspaper is published in Holyhead,

although the Principality can boast of no less than sixty, eight of which are printed in the native tongue. As a sample of what the English sojourner in Wales has to "put up" with, I give the titles of some of the most prominent—*Serenc Cymru*, *Baner Ac Amserau Cymru*, *Y Dynsogaeth*, *Y Golenad*, *Y Tystar Dydd*, *Y Felleten*. The prefix "Y" signifies "The." Of the remainder of the names I must confess profound ignorance—in fact, to me the whole language seems incomprehensible, and appears to have been concocted at a period when all the vowels had pertinaciously struck work, and left the consonants to do double duty. Nor can I say that I admire it, but that may be accounted for by the partiality for *liquids* that I possess in common with a greater portion of the Irish race. The sixty newspapers, of which I have made mention, make it nice and warm for the sixty editors who do the needful for them, and the manner in which they press their appreciation of one another's talent upon the public is most affecting to behold, and calculated to make the mind revert to *Reynolds* prior to the existence of the *Figaro*.

Welsh is spoken throughout Holy Island, as indeed it is in all parts of Wales, and I cannot help attributing the extraordinary preservation of this ancient language to the adoption of the Roman character, a reform that materially assists the scholar, as the Irish who attempted to retain the Celtic intact have failed signally in the effort.

Half the houses in Holyhead are inns, the perpetual thirst of the Welsh being proverbial. Of the most prominent there is "The Marine" and "Holland Arms," which come in for the lion's share of patronage, while the "Edinburgh Castle" and "The Royal," posting establishments—the position of which is unfavourable for traffic from either boat or rail—have sunk into oblivion since the decline of posting. The immense stables at the latter place of entertainment represents to the eye the "howling wilderness" rendered proverbial by the assiduity of the morning paper's "summary writers." The old posting sign, which has many a time delighted the eye of the worn-out traveller, creaks dismally to and fro like a gibbeted malefactor, and there reigns about the whole place such an air of complete desolation that, seeing it in its present forlorn condition one can hardly call to mind the days when the "old Wellers" of Anglesey whipped out the spanking teams from the door.

The hotel would have been devoid of all signs of life were it not for a sturdy-looking mendicant who loafed about the portico, and yet had a mob been there assembled it would not have possessed one-half the attraction that the individual in question did. He was a sort of curiosity in a mild way—a description of tailoring art monument that was very creditable to Holyhead. He had no more stomach than a curry-comb, that portion of his frame being represented by a deep cavity; his legs were in custody of a pair of pantaloons which, from their antique appearance, would have justified the suspicion that they had been bequeathed

"From 'bleeding' sire to son"

ever since the time Noah dissolved partnership with the Ark; and his arms, which closely resembled the handle of an umbrella, would have formed nice subjects for readying a pipe. "Eyes," it is said, "are the windows of the soul." If so, this party was supplied with his during the imposition of the window-tax. He had a voice which he made use of in a tremulous kind of way that resembled a small boy's effort to warble through a penny trumpet. He was poorly clad—very. Had the day been windy, his rag would have lashed him to death, yet his clothing was so scant that it would have been insufficient to pad a crutch or decently dust a one-eyed spectacle. He appeared to be a sort of cross-breed between a monkey and a penknife, and was such a man as Dr. Darwin would probably have given coin for, and exhibited as the missing link between himself and the gorilla. When he spoke he did so in an abstracted manner concerning the minor portion of the currency. But I didn't regard it from that platform, and I told him so. He then vented some remarks on the "simple annals of the poor," said he had no home, and volunteered to tell me his adventures truthfully. But my baptismal certificate is too ancient for that, so I told him about the workhouse, incidentally remarking that I didn't believe the description of truth he made it his business to peddle round. He, however, declined having any transaction with the workhouse, which he denominated as a "hungry caution." Feeling interested, I inquired if he spoke "grubically," whereupon he replied that he did, and further stated that the master of his union was "so mean that he wouldn't give a wedding portion to a female flea." He then consigned all the workhouse officials, from the chairman downwards, to an infinitely unpleasant hereafter.

But to continue my ramble. The promontory of the Head is an immense precipitous rock hollowed into caverns, which afford shelter to great quantities of rabbits and innumerable sea-lowl, among which may be found razorbills, guillemots, cormorants, herons, and even falcons. On the summit are the remains of extensive British fortifications, and a Roman watch-tower 10 ft. in diameter. On the sides droves of Welsh sheep and goats may be seen browsing, and here and there you occasionally meet with specimens of the small breed of black cattle peculiar to Anglesey. Around the coast the country is sterile and wild, trees and shrubs being scattered scantily over it; and, not only in the matter of wood but generally speaking the island is without protection, except indeed, six policemen, a fire-escape, and a lame postman might be looked upon as such.

Holy Island—or rather peninsula, as it is at low water—is connected with Anglesey by a vast stone embankment three-quarters of a mile in length, and 16 ft. in height, with an arch in the centre of some 20 ft. span, through which the tide rushes with amazing velocity. Along the sides of the sandy Channel which naturally divides Holy Island from the main, heath and heather blooms in great quantities, mantling the yellow beach in a profusion of dazzling colours. The embankment is called *Caer Gybi*; and as it is the end of the island, I think I cannot do better than make it the end of my sketch also.

OLYMPUS.

## THE EARLY RACES OF MANKIND IN IRELAND.\*

ANTHROPOLOGY—"The Science of Man," so called; his origin, age, and distribution on our globe; his physical conformation and susceptibility of cultivation; his various forms of speech; his laws, habits, manners, customs, weapons, and tools; his archaic markings, as also his pictorial remains, his tombs, his ideographic and phonetic or alphabetic writing, down to his present culture in different countries; and his manufactures, arts, and degrees of intelligence in his different phases of life throughout the world—are all presented for investigation by this section of the Association.

I am not going into the subject of the single or multiple origin of man; nor do I intend discussing the question of the cave-man, or the race whose early implements, weapons, and tools are found in the drift.

Instead of entering into the wide domain of anthropology generally, I shall follow the example of my predecessor, Dr. Beddoe, regarding Yorkshire, and confine my remarks to the subject of the early races who peopled Ireland in consecutive order, their remains still existing, and an inquiry as to what vestiges of those different waves of population remain at the present hour. To attempt a solution of this question, it is necessary to take a wider area than that afforded by an island adjoining the north-west of Europe, but which presents the remarkable peculiarity of having been in all probability the last resting-place of a section of that great Aryan or Indo-European race which spread from the Euphrates to the Polar regions. In tracing the footprints of man we have, as I already stated, to consider the relics he left in the various countries which he trod, the vestiges of his language, and the physical and psychological characteristics still attaching to his modern representatives. In so doing, we must consider the dim traditions, genealogies, heroic and bardic tales, rhymes, legends, religions, popular superstitions, folk-lore, romances, and all that description of knowledge which has been handed down from times denominated pre-historic to the present day.

That the skin-clad man, with his stone, bone, and wooden weapons and tools, his shell ornaments and rude unglazed pottery (the primitive nomadic hunter and fisher) arrived in Ireland, and occupied its plains, forests, and fastnesses, in that same state of life in which we find similar primitive races of mankind in the present day—here contend-

\* By Sir William R. Wilde, M.R.I.A. Delivered before the British Association at Belfast.

\* Numbers of people are in the habit of performing this feat, for the benefit of the sea trip.



ing with the bear, the wolf, the fox, the osprey, the seal, and the otter for his food, as his predecessors did with the auroch in mid-Europe—I have not the slightest doubt. I think the reindeer and the elephant, and probably the musk-ox had become extinct before man's arrival in Erin, and I have always inclined to the idea that he was not contemporaneous with that great monarch of the cervine race, the Irish elk; but in this opinion, however, I may be mistaken.

But whether he came adrift upon a plank or raft, or in a singletstick canoe, is more than I can even speculate upon. That there were inhabitants in Ireland at the time of the arrival of these first recorded colonists I have but little doubt. Whether these or subsequent races were the men who erected the Lacustrine habitations, the Pfahlbouden of Switzerland, and their analogues the Cranoges of Ireland, or banqueted in the Kitchen-middens of Jutland, require a further investigation of their remains.

Passing over, as probably apocryphal, the old tales related in the bardic legends of the Lady Kaisar and her ships, we come to Parthalon, the great Grecian hero, who landed in Dublin Bay, and whose cohorts conquered the aborigines, as related by the annalists. I should not have introduced him, but that there is a remarkable confirmation of the legend afforded by the topographic and antiquarian examination of the locality. This invader and his followers occupied, it is said, Ben-Eidar, now called the "Hill of Howth," and the "old plain of the valley of the Flocks," along the shores of Dublin Bay, styled "the Strand of the Birds," passing all round from Balseadden to Bray Head; and who had, no doubt, a "Pale" for themselves as others had in later times.

I will now tell you what has been the result of my own examination of the races that migrated to, or are said to have conquered, Ireland. A pastoral people called Firbolgs, said to be of Greek or Eastern origin, and probably a branch of that race that, having passed through Europe or round its shores, arrived in Ireland. We will call them Celts, as I do not know much of the Phœnicians or Carthaginians. They had laws and social institutions, and established a monarchical government at the far-famed Hill of Tara, about which our early centres of civilization sprung, and around which we have now most of those great pasture-lands which, notwithstanding this island being described as "a marsh saturated with the vapours of the Atlantic" and "surrounded by a melancholy ocean," on the shore of which the wretched inhabitant might sit and sigh for the time of his exodus and the hour of his exile—these plains of Meath that can beat the world for their fattening qualities, and supply neighbouring countries with their most admired meats. I cannot say that the Firbolg was a cultivated man, but I think he was a shepherd and an agriculturist. I doubt if he knew anything, certainly not much, of metallurgy; but it does not follow that he was a mere savage, no more than the Maories of New Zealand were when we first came in contact with them. The Firbolgs were a small, straight-haired, swarthy race, who have left a portion of their descendants with us to this very day. To these characters let me add those of the unusual combination of blue or blue-grey eyes and dark eye-lashes with a swarthy complexion. This peculiarity I have only remarked elsewhere in Greece; the mouth and upper gum is not good, but the nose is usually straight. The remains of this early people still exists in Ireland, along with the fair-complexioned Dannans, and forms the bulk of the farm labourers, called in popular phraseology "spalpeens, that yearly emigrate to England." In Connaught they now chiefly occupy a circle which includes the junction of the Counties of Mayo, Galway, Roscommon, and Sligo. They, with their fair-faced brothers (at present the most numerous), are also to be found in Kerry and Donegal; and they nearly all speak Irish. From these two races sprang the fairy mythology of Ireland.

The Dannans spoke the same language as their predecessors the Firbolgs. They met and fought for the sovereignty. The "man of metal" conquered and drove a great part of the others into the islands on the coast, where it is said the Firbolg or Belgic race (so called) took their last stand. Eventually, however, under the influence of a power hostile to them both, these two peoples coalesced, and have to a large extent done so up to the present day. They are the true old Irish peasant and small-farming class.

I believe that these Tuatha-de-Dannans, no matter from whence they came, were, in addition to their other acquirements, great masons, although not acquainted with the value of cementing materials. I think they were the builders of the great stone Cairns, Duns, Cashels, and Caves in Ireland; while their predecessors constructed the earthen-works, the raths, circles, and forts that diversify the fields of Erin. The Dannans anticipated Shakespeare's grave-digger, for they certainly made the most lasting sepulchral mountains that exist in Ireland, such, for example, as New Grange, Dowth, Knowth, and Slieve na Callegagh and other great cemeteries.

It is affirmed that the Dannans ruled in Ireland for a long time, until another mroad was made into the island by the Milesians—said to be brave, chivalrous, skilled in war, good navigators, proud, boastful, and much superior in outward adornment as well as mental culture, but probably not better armed than their opponents. They deposed the three last Danran kings and their wives, and rose to be, it is said, the dominant race—assuming the sovereignty, becoming the aristocracy and landed proprietors of the country, and giving origin to those chieftains that afterwards rose to the title of petty kings, and from whom some of the best families in the land with anything like Irish names claim descent, and particularly those with the prefix of the "O" or the "Mac." When this race arrived in Ireland I cannot tell, but it was some time prior to the Christian era. It is said they came from the coast of Spain, where they had long remained after their Eastern emigration.

Besides the sparse introduction of Latin by Christian missionaries in the fifth century, some occasional Saxon words springing from peaceful settlers along our coasts and in commercial emporiums, and whatever Danish had crept into our tongue around those centres where the Scandinavians chiefly located themselves, and which were principally proper names of persons and places that became fixed in our vernacular, we find but one language among the Irish people until the arrival of the Anglo-Normans at the end of the twelfth century.

The linguistic or philological evidence on this subject is clearly decisive. The residue of the early races already described spoke one language, called Gaelic; so did the Scotch, the Welsh, and probably, in early times, the Britons and the Bretons. It was not only the popular conversational tongue used in the ordinary intercourse of life, but it was also employed in genealogies, annals, and other records in a special character, not quite peculiar to this country, but then common in Europe.

In Connaught, in my youth, the exception in remote districts was where the person spoke both English and Irish. In 1851, when we first took a census of the Irish-speaking population, after the country had lost three-quarters of a million of people, chiefly of the Irish race, we had then (to speak in round numbers) one and a-half million of Irish-speaking population. In 1861 they had fallen off by nearly half a million; and upon the taking of the last census in 1871 the entire Irish-speaking population was only 817,865; and I think I may prophesy that that is the very largest number that in future we will ever have to record. On the causes of this decadence it is not my province to descant. These Celts have been the great pioneers of civilisation, and are now a power in the world. Are they not now numerically the

dominant race in America? and have they not largely peopled Australia and New Zealand?

(To be continued.)

## CORRESPONDENCE.

### "PUBLIC RIGHTS AND PUBLIC NUISANCES."

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I am glad to see the very interesting articles you are now publishing in your valuable journal on "The Treatment of Sewage," &c.

I hope you will not omit to mention General Scott's admirable plan of treating sewage. I have been for some time trying to get it adopted in Belfast, and hope to ultimately succeed—the sooner the better for the town, for I can show by a very few figures that there would be a nett gain to the town of £5,000 per annum secured by the adoption of this simple process.

As you are doubtless already aware, the process consists in simply putting lime and clay into the sewage, which combine with and precipitate the solid matter, and leave the water clear, removing at the same time all smell.

The very best Portland or any other cement is made out of the deposit, the quality being determined by the proportions of lime and clay put in.

The process has been successfully working at Birmingham for nearly two years. It is also in use at Ealing and West Ham, at any of which places it can be easily seen at any time.

The pamphlet published by Scott's Sewage Company (Limited) fully explains the process, and shows the many disadvantages in attempting to make manure, on the authority of the most eminent authorities on this subject, such as Dr. Frankland, Dr. Odling, and many others.

R. W. J. TRUMAN.

Belfast, 27th August, 1874.

### "SCIENCE AND SPLUTTER IN MOUNTMELICK."

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I have read your remarks under the above heading, and indeed was surprised that Mr. Wright could have been charged with neglect, in not having the work properly carried out, whose general character is of being too exacting on contractors. I was also surprised to read of charges against him of incompetence to prepare plans and have the work carried out for a simple sunk-fence lining of mason work, 4 ft. high against a bank. He who prepared plans, &c. for the building of several first-class houses built in the towns of Portlinton, Monasterevan, Mountmellick, and the work carried out under his directions and to the satisfaction of the owners. According to report, Mr. Wright was dismissed as clerk of works, as I take it, with the intent of degradation. From my experience a clerk of works is a person placed constantly at the works, under the architect; it is evident this was not Mr. Wright's position. To me the whole proceedings from beginning to end appear strange.—Yours,

A. C., Builder.

### NOTES FROM THE WEST.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—The precursor of the Railway system—the Electric Telegraph—has been established in Ballinrobe for some time; it is now open to Cong. I am much surprised that no parties have revived the project of forming a branch line from Claremorris to Ballinrobe and Cong, with the inevitable extension bye-and-bye to the seaboard at Clifden, Connemara. The first division of this line presents every facility for a cheap single one—cheaper than the Fium Valley and Athenry and Ennis Railways. It has a sound site from end to end; lots of good limestone for building; larch or tamarac and other timbers for sleepers, &c.; cheap and good markets in Claremorris and Ballinrobe. The neighbourhood is thickly studded with a hardy and industrious peasantry. There are many highly respectable and considerate resident landlords, of whom I will just mention Mr. Lambert, of Brookhill; Col. Rutledge, Bloomfield; A. K. Gildea, Clonermack; C. Howe Knox, Ballinrobe; Sir Arthur E. Guinness, Cong; Mitchell Henry, Kylemore Castle—all men of mark and integrity. I know every inch of the country, a distance of little over twenty statute miles, and I unhesitatingly say the line could easily be made for £4,000 per mile. The fencing could be of dry masonry, Scotch coped and pointed. The cost of



bridges (they being now-a-days surmounted with Courtney and Stephens' patent superstructure) would be a mere bagatelle compared with what it would have been some years ago. The money could be obtained through the Board of Public Works, both baronies, Claremorris and Kilmaine, undertaking to repay the loan in 20, 30, or 40 years. This is no mere experiment, as it was first tried successfully in 1847-8 in the district over which I was Resident Engineer on the W. & L. Railway. The baronies subscribing for the loan were—Iffa and Offa West, and Clanwilliam, in Tipperary. Visited Cong since the weather changed for the better; admired much the canal here. It was commenced by the Public Works Board in 1847-8, and left in its unfinished state, and 'tis a pity it has been left so. I noticed on entering Cong several huge blocks of limestone (just the materials with which to build Cyclopean works of art) there lying undisturbed, as they were left years ago. As the tourist pursues his way through the village, at the old cross he proceeds on straight to the Abbey, a work of art lately partially restored through the conservatism of Sir A. Guinness. Looking across the sparkling river towards Ashford, we come in sight and get a fine view of the south-west facade of the Abbey of Cong. The quadrangle in front seems to be that set apart as cloisters. Sir Arthur has made this quadrangle look like a section of the far-famed Alhambra. If it had a fountain playing in it, it would be a perfect fairy scene. The stern aspect of the Abbey front was tempered down by the green patches of ivy here and there clinging to the old walls, and the restored patches of the cloisters carried one back to the time when the Abbey was founded, some nine or ten centuries ago. These restorations, to a critical eye, would be said to be too uniform, too regular, too similar in dimensions, &c. They should not have been so, as no two of them should be alike in height or length. They are now remade and restored, and let us not cavil with the hand of the restorer; rather let us give honour to whom it is due—blessings and praise to the man who has come amongst us to raise us up from the slough of despair and dependence. Before crossing the sparkling river to Ashford, one may observe a detached house out in the river. This was used as a dépôt by the industrious Augustinians of old. The eye or arch is carried through the little shanty, so the good friars had not to wet their feet, as there is a small causeway or path of masonry made from shore out to the hut. Sir Arthur Guinness is at present getting up neat, well-built farm buildings on his estate about Cong. The quay for the steamer to Galway is being removed from the village to a place called Lisloher, about half a mile east of the old quay, near Ashford House. He is also building a glebe-house or presbytery for his former antagonist, Father Lavelle, which will cost about £1,000. Let us "Go and do likewise." Sir Arthur Guinness will be long remembered in this locality as the benefactor of mankind, the restorer of peace and harmony amongst the people, of every creed and shade of politics. In a word, he has set an example of goodness which it would be well for us had our progenitors practised. We would be a different people now.

J. N. GILDEA, C.E.

22nd August, 1874.

## THE CITY LIGHTING.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Permit me to direct the attention of your readers to the extraordinary appearance presented by the public lights, particularly by those in our back streets, &c., for some months past. Any casual observer could have perceived that about every tenth lamp gave out a light almost twice as powerful as that given out from the others, and in numerous instances the inequalities of the lights would be fairly represented by the figures 2 and 5, very frequently 1 and 5 being the just proportions they bore to each other; in some instances 50 and 5 would truly describe their respective values. By comparing those lights with each other the observer could also have seen that at least double the bulk of gas was being consumed in the production of those lights of increased power, and a further examination of them revealed the fact that all those bright lamps consuming such an increased bulk of gas had meters at the base of the lamp posts. I believe that the average of the bulk of gas consumed, as indicated by those meters, is taken as being consumed by all the public lamps, and so charged for. If such be the case, the whole system of public lighting, and the valuation of it, has been working at a loss to the ratepayers, an estimate of the amount of which—not knowing the exact prices which has been paid for gas during the periods referred to, or the

total number of lamps consuming it—I am unable to give, but, I would not be surprised to learn that latterly it may have amounted to £20 per night.\* I may here add that I did not see a metered lamp with a bad light. Surely the Corporation, in helping the Gas Company to pass their last gas bill, have done enough of evil to the ratepayers and gas consumers without further displaying their incompetency in the matter of the public lighting.

27th August, 1874.

JAMES KIRBY.

## A "WANT" AND A "WASTE."

At a special meeting of the Corporation yesterday, Sir John Gray called attention to the inconvenience arising to the public from the fact of the vacancy in the office of Law Agent not being filled up. He referred especially to the fact that *nothing was done to prevent a waste of water*, and the consequence was there was a decrease in the amount of water usually stored in the reservoirs. Since coming home from London, he ascertained that there had been a considerable waste going on in the city. The inspectors were powerless in the matter, owing to the fact that there was *no Law Agent to communicate with*. They were using twice as much as was necessary for the requirements of the city. In Liverpool a system was adopted by which waste was immediately detected. Not alone was there considerable waste going on in the city, but in the townships. Since his return he had received communications from several of the townships, including Clontarf, Pembroke, Bray, and Blackrock, agreeing to pay 3½d. per thousand gallons for excess water; and, considering that 4d. was all they could legally enforce, the offer, he thought, was not unreasonable, and ought to be accepted.

Mr. Dennehy considered the townships did not contribute as much as they ought for the water accommodation they received.

## CORPORATE BUILDING WORKS.

At the meeting of the Corporation yesterday the Town Clerk read a report from No. 2 Committee, recommending the payment of £375 18s. 11d. to Mr. Hogan, builder, of Winetavern-street, on foot of extra works contracted in connection with stabling and yards in Whitehorse-lane for the Corporation. It appeared that Mr. Hogan originally sent in a bill for extra works, for £451 18s. 6d., and that Mr. Neville, the city engineer, had inspected them, and certified that the sum of £299 18s. 11d. was sufficient to pay for this work. Mr. Hogan threatened litigation, and the matter was referred to the arbitration of Mr. Callow, T.C.; but meanwhile, Mr. Neville had further certified that £375 18s. 11d. should be paid, giving the difference between his first estimate and the amount required by Mr. Hogan. The report was adopted.

## REPORT OF GAS EXAMINER.

THE following has been published by Mr. C. R. C. Tichborne, the newly-appointed Gas Examiner, as his report on the quality of gas supplied to the city for the week ending 29th August, 1874:—Determination of illuminating power during the week: 1st, 17.22; 2nd, 18.00; 3rd, 16.274; 4th, 15.84; 5th, 16.00; 6th, 16.64; 7th, 17.02; 8th, 18.00. The maximum determination was 18 candles, and the minimum testing gave 15.84. This testing was the only one which gave the illuminating power below 16 candles, namely, 16 below the standard. The average of the testings gave the illuminating power as 16.87 candles, being nearly one candle over the prescribed standard. The pressure direct from the main averaged 1.6-10th inch before dusk, and 2.2-10th inches after dusk.

\* The highest number I have seen on a lamp is 3,300; and, supposing that all those lamps burnt each 5 cubic feet per hour (according to the new Gas Act), and that the average number of hours each lamp was lighted each night throughout the year as being 10, the consumption of gas in every lamp would be annually 18½ thousand; and, if we take the price per 1,000 (less discount) as 5s., the annual cost of each lamp would be £4 11s. 3d. The annual total for the above number of lamps would be £15,056 5s., the nightly average of which might be called £41.

## TO CORRESPONDENTS.

"VON FEINAGLE"—An "Old Feinaglian" and "An Old Boy" will please to accept our thanks for their notes, which will be utilised.

A SUBSCRIBER.—A clerk of works is, or ought to be, an architect's representative, to carry out his instructions, to see that all the materials are as specified, and that the work is executed in a proper and workmanlike manner. Clerks of works are, however, often appointed by builders, contractors, public companies, and local boards. In each case it is their duty not to injure the architect or engineer, though they may be independent of them, by allowing bad materials and workmanship to pass. A clerk of works should have a sound knowledge of building construction in all its branches, and be a good draughtsman to boot.

THE TREATMENT OF SEWAGE.—We will notice the principal methods advocated and speak impartially of all. Our object is to afford information, utilise waste resources, abate public nuisances, and to improve the public health.

THE GAS COMPANY AND THE CONSUMERS.—The statement in Mr. Kirby's letter in this issue is worthy of the serious attention of all citizens.

A CARPENTER.—There are many fine old specimens of timber and half-timbered houses still existing, scattered up and down through the counties of the sister kingdom. At present there are but few works of particular notice in this kingdom. The last of the notable timber houses existing in Dublin was taken down in the early part of the present century. See the first volume of the *Dublin Penny Journal* for some account of them. Read "Home Architecture in America" in last issue, and it will afford you some idea of the timber houses in the States.

J. A. R.—Thanks. We shall probably make use of the sketch. K. D. R.—Your drawing is not suited for the photo-lithographic process. It should be altogether in pen-and-ink. You might try another.

\*\*\* Several correspondents have omitted to furnish their names and addresses. Their communications are consequently consigned to the waste-paper receiver.

## HOME AND FOREIGN NOTES.

A RAILWAY ON MOUNT VESUVIUS.—The railway now about to be constructed from Naples to the top of Mount Vesuvius, near the crater, will be 26 kilometres (*circa* 16 miles) long; the localities it serves, to the foot of the volcano, comprising a population of 100,000 inhabitants, who provision the markets of Naples. From Naples to the foot of Vesuvius, a distance of 23 kilometres (about 14 miles), the ordinary rails will be used, and the system of traction by means of iron rails (*drothseil*) will be adopted for the remainder of the way. The second division will be classed into two sections—the one 2,100 metres long, towards Atrio di Cavallo, where will be the drawing machine and the buildings necessary for the railway; the second section, 1,100 metres, will come out a few steps from the crater. The terminus will be sunk 20 metres under the lava. In case of eruption, the current would thus be turned away from the rail, which throughout its whole course will be raised above the level of the soil. Professor Palmieri, director of the observatory at Mount Vesuvius, having observed that the lava, in every eruption, approaches nearer the buildings of the observatory, the opposite side of the mountain will be chosen for laying down the rail. About 250 metres from the projected station at Atrio di Cavallo, Mount Somma makes a spur or projection, of which they will make use to keep all the working stock in case of an eruption. The whole line will be held in communication with the Observatory by means of a telegraph.—*Academy*.

EXHIBITION AT THE ROYAL ULSTER WORKS, BELFAST.—Speaking of specimens of manufacture by Messrs. Ward and Co., exhibited at the above works, our contemporary the *Belfast Newsletter* says:—"Entering the room your eye is at once caught by a glittering heap of children's picture-books, filled with the most artistic designs. In gorgeous colours are depicted the wonderful adventures of Cinderella, Aboo Hassan, and, indeed, of the thousand heroes and heroines of our childhood. To these succeed a number of books, beautifully illustrated, adapted for more adult readers. Then come specimens of Christmas cards and valentines—the manufacture of which goes on all the year round. Some beautiful specimens of albums, scrap-books, and crest albums are also exhibited. All these are shown in different stages of progress, and the original designs are placed side by side with the copies. In the centre of the room are several cases filled with leather goods—writing cases, jewel boxes, purses, &c., &c. The specimens of illuminated addresses are worthy of the most careful attention, especially the magnificent copy of the "Bull Ineffabilis Deus," being made for a Carmelite Convent in Dublin. Every line is done by the hand, no two pages alike. For chaste richness it could not be surpassed. An immense pile of Vere Foster's copy-books shows that the Messrs. Ward excel in producing the useful as well as the ornamental. This pile contains the number of books used in a week, 80,000. Other tables are laden with specimens of Irish paper and account-books; but it would be impossible to give an adequate description of all that's to be seen.



**THE CHANNEL TUNNEL.**—When theoretical and practical men differ in opinion respecting the feasibility of any proposed scheme, an actual experiment affords the only means of ascertaining which of them is in the right. Rival opinions, conflicting statements, and contradictory assertions have existed for years with regard to the possibility of tunnelling under the Channel, and as yet nothing has been done or attempted to be done, with the exception of some endeavours of a private character to which we shall allude, to solve the problem. If we sum up the opinions hitherto expressed by geologists and engineers respecting the Channel Tunnel, it will be found that while the former do not go so far as to deny the possibility of the undertaking, yet they entertain great doubts of its feasibility. As an instance of an obstacle, which geologists regard as calculated seriously to imperil the success of engineering subterranean works, may be mentioned land springs. These certainly give a great deal of trouble occasionally, but no engineer would be deterred solely on their account from carrying out the undertaking. Assuming uniform conditions to prevail in the same strata, the remark of Sir John Hawkshaw is very appropriate. He has observed that at a sufficient depth it is of no more consequence that the sea may be above the tunnel than a mountain. The cost of running preparatory driftways in order to determine the ultimate practicability of the scheme has been estimated at £80,000. It has been stated that the Great Northern Railway of France is willing to contribute a portion of this, provided the London, Chatham and Dover, and South-Eastern lines on this side of the Channel will furnish their quota. The proposition is fair and reasonable. Until some trial of this description is made, it is idle to speculate upon the contingencies which may occur, or to enter into details respecting the character of the permanent structure. The best form to be adopted, the most suitable materials, and the mechanical arrangements for their transport, and for ensuring ventilation, are all matters which it is quite premature to discuss at present.—*Engineer.*

**GAS IN LONDON.**—The recent determination of the Metropolitan Board of Works (says the *Morning Post*) to solicit parliamentary powers to enable it to compete with the existing gas companies, and to provide an independent supply of gas to the metropolis, has been speedily followed by public agitation in the matter. There is no desire on the part of either the Board of Works or the public to deprive the shareholders in the gas companies of a legitimate return for the capital they have invested; but since they prefer to rely upon the Acts of Parliament which have placed the ratepayers at their mercy, rather than to adopt economical modes of working and to reform the present extravagant style of management, they must accept the consequences of their policy and the results of their refusal to listen to all the remonstrances and protests hitherto addressed to them. The establishment of rival gasworks under the management of the Metropolitan Board cannot fail most seriously to affect their position, if not to render it absolutely untenable; and there will probably be a loud outcry against interfering with vested interests. But the acts of Parliament upon which they rely will still remain in force if competition be permitted, and whether the companies are wise in time and consent to introduce the requisite changes into their administration, or whether they compel the board to extreme measures, it is certain that the time has come when London must be enabled to procure as good and as cheap a supply of gas as is now enjoyed by many second-rate towns, both in the provinces and on the Continent.

#### NOTICE.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

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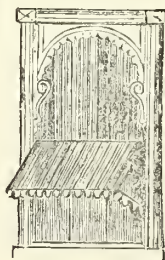
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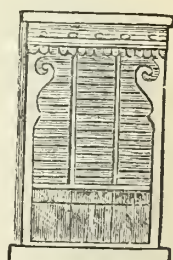
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# The Irish Builder.

VOL. XVI.—No. 354.

*Building and Sanitary Legislation.*



T has been repeated very often of late years that we cannot make men sober by Act of Parliament. It may be said with the same show of reason that we cannot make men honest, or prevent the evil-inclined from becoming criminals. All legislation is more or less compulsory; and if it was not so, society would at once drop to pieces, or exist in a state of anarchy. Though many have been opposed to compulsory education, we believe that the Elementary Education Act that led to the formation of the London and provincial school boards system is a step in a straightforward and essentially necessary direction.

Bad and drunken parents will neglect the education of their children, and we know that such neglect tends to the rearing or rather dragging up of children to be drones, thieves, and pests of society. It tends to pauperism, dirt, disease, and criminality, and to a heavier increase of national taxation. Compulsory education is, therefore, necessary, and will, we fear, be necessary for generations to come; and it is the duty of the State to enforce the provisions of the law that no child, no matter how humble or impoverished its parents may be, shall be reared up in the British Islands in ignorance.

Sanitary legislation must, for the same reason, be essentially compulsory to a large degree, and it may be so without being harsh or despotic. Parents who are prone to neglect the education of their children will also neglect their children's health, and be careless about the cleanliness of their homes. As every dwelling in the aggregate constitutes a town or a city, if all or the majority were allowed to act as they wished, public health could never be established, and the country would be always a prey to successive plagues or epidemics.

We have repeatedly in this journal drawn attention to the want of sanitary requirements; and as the inculcation of sanitary science, the carrying out of sanitary laws, and the conservation of the public health depend to a very great degree indeed in their application to building matters, we feel bound in never losing sight of the fact. The English Public Health Act of 1872 is not working well, nor will the Irish Act of last session, which is inferior to the English measure. We are in favour of the compulsory clauses, but the machinery is defective for working the Act. There will, we fear, be many collisions, much confusion, and a continuous crop of law-suits while the Act remains in its present state.

We long since advocated the codification of the Sanitary Acts, all of which since 1866 at least have been nothing more than patch-work. In London the metropolitan authorities are feeling their way to reform, and in the abandoned bill of the Metropolitan Board of Works there was a promise of much good. Although very defective in parts when origi-

nally introduced, conference and discussion led to its improvement. It was built upon good lines, for it was based on architectural and engineering foundations. It embodied to a certain degree the laws of prevention, for it made necessary acts upon the part of the local authorities and the inhabitants compulsory. Despite of a Building Act in London, sanitary authority has been so divided that rascally house-owners and low and unprincipled speculative builders have been making rich harvests for a number of years, by utterly (and openly violating the laws of health in the construction of cheap and nasty houses. Bad materials, bad workmanship, absence of proper house-drainage, and a total disregard to height, space, or ventilation, have signalled the erection of their structures. The results were, of course, continual outbreaks of typhoid and other zymotic diseases.

Here in Dublin we have no Building Act, and matters have proceeded for years as speculators have wished. Had the local authorities even enforced the provisions of the Towns Improvement and one or two more of the other defective Sanitary Acts, the evil would have been limited; but no,—here as in London local rulers and their staffs have played into the hands of the building rascals for their own cogent reasons. Here, as well as in London and other places, the owners of some of the worst house property were members of the local or sanitary boards; here, as well as in the English metropolis, the very men who were employed to act as sanitary inspectors were the landlords or sub-landlords of the vilest unsanitary tumble-down houses. And be it known to the Local Government Board and to the Irish Executive that among the members of the police force who are paid out of the public taxes for protecting the lives and guarding the interest of our citizens, there are individuals who act as sanitary officials—act in a double capacity,—all the time being owners of some of the wretched house property we have been describing.

We have several times pointed out the necessity of having sanitary officers who know how, and are not afraid, to do their duties. A certain amount of independence is needed in their case, better supervision, and a change in the mode of their appointment. Have we not all experienced that heretofore some of the worst offenders against the Sanitary Acts have been members of the local authorities, and that sanitary inspectors held office at the will of these parties, and were afraid to report neglects which it was their bounden duty to make known?

Diseases in all cases may be prevented, and, although the origin of some are not yet satisfactorily accounted for, yet all of us know that cleanliness in house and person is the best preventive. It is undeniable, if a town is maintained in a good sanitary condition, the spread of cholera and fever is either altogether checked or limited to a few cases. Cleanly persons have, of course, been attacked as well as dirty ones, but where a house and a family have constantly maintained cleanliness, secured good air and pure water, it will be found in most instances if members of the family do succumb to the attacks of fever or cholera, it is traceable to inherent weakness of constitution or cognate causes. Mere cleanliness of person, or of rooms lived in, are not sufficient. Structural defects con-

nected with the foundation, drainage, and other portions of the dwelling require to be remedied; and, apart from these, the local authorities must supplement the work by a careful attention to the cleansing of the streets, courts, and byeways, and the saving of the river, if it runs through the town or city, from pollution.

In a paper published in our last issue, read by Dr. Grimshaw at the Belfast Congress of the British Association, there is much put forward with which we entirely agree, although we dissent in matters of detail. We are so concerned in the progress of sanitary science, and the establishment and maintenance of public health, that we are ever anxious to ventilate all sound and rational suggestions, come from what source they may. A member of the Sanitary Committee of the Belfast Town Council, in speaking on the discussion that ensued from the reading of Dr. Grimshaw's paper, said that he had no faith in Civil Engineers at all with regard to the purification of the river. This worthy member would prefer to keep the sewage in the river, deepen the bed and smoothly flag it, so that the sewage might make its way out to sea. He told the meeting nothing at all about the possibility or probability of the sewage coming back again with the tide; nor, as far as we know, did he advise the Belfast public to prevent the sewage from being let into the river. If he did this, he would have been saved the trouble of grumbling with a narrow spirit at the expense of engineers, who always (every one of them, we suppose) submitted plans far too costly.

We are told that the Belfast Town Council have a good sanitary staff, among whom are neither doctors nor engineers. We are glad to learn that the Blackstaff is improving, though our latest look at it, and that not long since, proved to us that the improvement it stands in need of has not arrived yet. The mills or factories in and about Belfast have to a large extent polluted the river and its tributaries. The latter are still very little better than elongated cess-pools. The Northern Athens may justly feel proud of several things, but in the matter of sanitary science it cannot as yet afford to holla. Belfast may be congratulated for having a tolerably good Building Act, and, possessing it, it is in the power of her Corporation to achieve much more, easily and readily, in a sanitary direction.

It is a matter almost of humiliation in Dublin for a professional journalist to have so often to point out the shameful and constant neglect of his own countrymen; but knowing that we are in the right, we shall continue to speak out boldly and unreservedly until the reform we have so long honestly and persistently advocated is effected. Compulsion is necessary, for, without stringent laws, the careless will sacrifice the millions; and the members of local boards, as they are at present elected, will not be found to be the least of the obstructives to the advance of sanitary improvement.

## "THE NORTHERN ATHENS."

THERE are Guides and Guides, some of which are merely so in name, others of which are misleading, and more which are little less than advertising puffs compiled by parties

"Guide to Belfast and the Adjacent Counties." By Members of the Belfast Naturalists' Field Club. Belfast: Marcus Ward and Co. 1874.



without the least qualification for the task of guiding or affording information. The labour of compiling a Guide has often devolved upon a single individual; but no single individual in himself possesses the requisite amount of information to be the reliable informant of others. Whoever he be who undertakes to prepare a Guide—whether he be a native of the place described or otherwise,—has need to enlist the services of others in matters of which he himself is not technically acquainted. A good compiler must at the same time be a literary craftsman of no small ability, and possess discernment, and exercise it in his task of selection. A committee may draw up a report, and commissioners may issue it in their name; but though the report may embody the best opinion and judgment of a number of men, yet the literary labour of construction in most instances is the work of one or two.

The volume we now notice professes to be the work of the Belfast Naturalists' Field Club, and no doubt to a certain extent the materials of the volume are owing to the labour of love given to the study of separate subjects by the members of the Club. One of the objects, as stated in the preface, was, that "the committee of the Club, being desirous to add, as far as in their power, to the interest of the Belfast meeting of the British Association, resolved to prepare a small volume embracing the result of the labours of the Club's members, and thus bring together in a condensed form an amount of information not easily attainable under ordinary circumstances, and at the same time likely to be of general interest. The execution of this work was entrusted to a sub-committee composed of members who had given special attention to the subjects treated of, and who undertook to illustrate the work by sketches from their own hands—not artistic perhaps, but correct. The localities described, and the several objects of archaeological or geological interest specified, have been in all cases visited, and the greater part of the species claimed for the locality can be verified by specimens in local collections. The others are inserted only on proper authority."

No matter on whom devolved the lion's share of the task, we have much pleasure in stating that the work is executed well. As a Guide, it is one of the best, if not the very best, ever published in this country. It is not only a Guide to sites, objects, and places worth seeing in the town of Belfast and its environs, but it is a local history of high merit, embracing the physical geography, geology, botany, zoology, topography, history, antiquities, agriculture, trade, and commerce of Belfast and the adjacent counties, as also a description of places of great interest, suitable for short excursions from the northern capital by strangers and visitors, home and foreign. The chapters on the Physical Geography, Geology, and Botany of the district are admirable, and those on the Civil and Ecclesiastical Architecture, though subjects more generally known to native readers, are excellent also, because materials formerly inaccessible are availed of, and what is really worth knowing is given. The chapter on Agriculture is not without its merit, and will be found most useful. In the chapter on Trade and Commerce the reader will be afforded a tolerably clear insight into the history and trade of modern Belfast, and to the causes which have contributed to make

the town the important port and manufacturing centre which she is. The "Belfast Guide," in all the subjects which it treats of, is well arranged, and the information clearly and pleasingly put. Each chapter is illustrated with a number of coloured lithographs, the whole amounting to about forty-six, and a map of the County Down and Antrim is appended, on which all the remarkable places of interest mentioned in the volume are marked down. In a word, the Guide, which contains upwards of 300 pages, and a good index to boot, is replete with information invaluable to not only the tourist and visitor, but to readers in all ranks and walks of life. The printing and mechanical get-up of the volume is all that could be fairly wished, and we trust that other cities in Ireland will follow the example set by the Belfast Naturalists' Field Club, in giving their countrymen a similar volume.

We may have occasion to refer to the book again in the interests of our constituency, so we will content ourselves with what we have written above in brief review of this admirable Guide.

#### ESSEX BRIDGE.

We have been for some weeks past observing the rapidity with which the works at the new Essex Bridge have progressed. The arches are complete, and the roadway is being laid. In the centre of the arches a space has been left, through which the gas and water mains are laid across upon iron bars. By this plan the future ripping up of the roadway will be avoided. The carriage way on the south side has been lowered about twelve inches, to suit the level of the new bridge. The culverts constructed on each side as a portion of the City Main Drainage Scheme, at a cost of about £6,000, are for the present to remain unutilised! The footway, 12 ft. in width, is supported on iron cantalivers springing from the stonework of arches. The balustrade is of iron trellis-work. The opening will probably take place soon after the date of our next issue. As previously remarked, the old foundations of Semple's bridge have been utilised. The plans are by Mr. B. B. Stoney, Engineer to the Port and Docks Board. Mr. William J. Doherty is the contractor, to whom the greatest credit is due for the manner in which his contract has been carried out.

#### A JUSTIFIABLE "STRIKE."

SOME few days ago a body of colliers, numbering 800, employed at Trimdon Collieries, Durham, threw down their tools and struck for "water and decency." Many of the poor fellows had long complained of the foul water they were obliged to drink, and the absence of water-closet accommodation in connection with their dwellings. Their complaints were unheeded for years, and promises sometimes were given only to be broken. Their last resource came, and in their action they deserve the sympathy and support of the whole country. The owners of the collieries, we hear, are now searching for a supply of water. The men have resolved to work no longer or pay rent, unless good water and decent accommodation is supplied them; and they make a further demand, that they will require two pints each of good water to take down to the pits for drinking purposes; also a good supply for washing themselves in the mines as well as at their homes. We hope the example of the Durham men will be followed all over the British Islands. It is time that a strike should be made for water and water-closets, for cleanliness and decency

in dwellings and workshops. The sooner that such a righteous strike extends to this country the better.

#### ALTERATIONS AT THE THEATRE ROYAL.

SUNDRY alterations and decorations have been effected at this building, which it is hoped will make it a more acceptable resort by the play-going public than formerly. The orchestra has been lowered, to afford a better view of the stage to the denizens of the pit; and the painter, upholsterer, and gasfitter's art has been exercised to the improvement of the inside generally, and to the making of all things more presentable and comfortable from gallery to pit.

#### NEW PARSONAGE, WARRENPOINT.

THE foundation-stone of a parsonage for the incumbent of Warrenpoint was laid yesterday by Master Robert Hall, son of Major Hall, J.P., Narrow-water Castle. The building will be two storeys in height. The material to be used is compressed brick from Castle Espie, with moulded string-courses of Dunganon stone, and bands of coloured brick. The roofs will be covered with Bangor blue slates, with diapered courses, and surmounted by a cresting of red tiles of Gothic pattern.

Mr. James Watson, of Newry, is the architect; Mr. Alex. Whelan, of same town, is the contractor. The cost will be about £1,100.

#### WATER SUPPLY FOR WARRENPOINT.

THE following is the report furnished by Messrs. Watson and Richards to the promoters of the proposed waterworks at Warrenpoint, County Down:—

GENTLEMEN,—Agreeable to your request, we have made a preliminary investigation as to supply of water which can be obtained for the use of Warrenpoint, with the following results:—We find that an ample supply of water exists in the neighbourhood of Mr. Graham's farm—sufficient for present and prospective wants of the town and neighbourhood of Warrenpoint, including domestic, trading, and shipping purposes, as well as for public requirements, such as watering streets, flushing drains, supplying baths and wash-houses, extinguishing fires, &c. And that same can be brought to a service reservoir situated at a height of 100 ft. above surface level of Warrenpoint-square, at a comparatively small outlay; and, in the event of the town and population of Warrenpoint increasing beyond anticipated limits, then and in that case an additional supply can be obtained at a very moderate expense. We regret having been unable, from the shortness of time at our disposal, to make a detailed estimate of the cost; but we have, however, made sufficient calculations to enable us to state that an extremely low rate struck on the rateable property within the district to be supplied with water will be equal to five per cent. upon total cost of works when completed. In arriving at the above conclusions we have been guided by the following incontestable facts:—First—The nearness of the source to the town. Second—The favourable nature of the ground between principal and service reservoirs, by carefully following the contour of which all expensive works can be avoided. Third—The entire absence of expensive catchment drains to protect the supply from being contaminated by bog or flax waters. In case a greater pressure than one hundred feet be required, it can be easily obtained, but of course only by an increase of outlay. For all present requirements, however, and having a due regard to the interests of the ratepayers, we are of opinion that one hundred feet will be sufficient for all practical purposes.

It is understood that a special meeting of the Newry Board of Guardians will be held on the 26th inst., when the matter will be fully considered.



## UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

*Edited by Mark Philip O'Flanagan, T.C.D.*

NOVO NOSTER-STREET—(Fourth Visit).

OUR visits to Novo Noster-street have, from a variety of circumstances, been prolonged, and have, through our conversations with our confidential cicerone, elicited many interrogatories. The memories and associations connected with Aldborough Institution or the Luxembourg, are indeed many and varied, and for reasons which will appear hereafter we are justified in extending our notice and adding a sequel which will be found not the least interesting of our memorials.

Before proceeding further we will, with the consent of the "Oldest Inhabitant," give place to the following interesting particulars from two pupils of the old Feinaiglian Institution. Our cicerone will make some observations thereon as far as he deems it necessary:—

"Dublin, August 19, 1874.

"DEAR SIR,—I do not think you do sufficient justice to the memory of Von Feinaigle and the effort that he made in Dublin to reform education. The Feinaiglian Institution was the very first example that was given of the application of the Joint Stock proprietary system to the purposes of education, and it is undeniable that the extension of the scholastic curriculum in classical schools to modern languages, and to additional items of information beyond those that were usual at the epoch, operated and led to analogous improvements in T.C.D. It was the example of the school founded by Von Feinaigle which led to this great educational progress. He was a man of genius and a scholar, and impressed a character upon the age. You will find his name handed down by Byron in 'Don Juan' in such a way that it is not likely to be forgotten. Moreover it was the folly of Tresham Gregg, and not the want of success, which prostrated the school. He was made the head master, and because he could not carry out a croquet of his (that was to expel the classical authors, and make education in Greek and Latin to be gone through a course of study in the sacred writings and the Fathers instead) he threw up his position, and so the great school fell.—I remain yours,  
"OLD FEINAIGLIAN."

The second pupil, speaking from memory, thus jots down his recollections, which will be found interesting:—

"DEAR SIR—Having been at school at 'Lux,' as the boys used to call it, I recollect being there with the following, who were afterwards county surveyors:—Henry Davidson, W. A. Tracy, T. A. French, Peter Burtchaell (the latter a nephew of Mrs. Von Feinaigle, which lady is still living in the neighbourhood of Dublin). There were in my day also boys who became well known or eminent men. Of these I recollect David Lynch, afterward Judge Lynch; Sergeant Armstrong, who also had a brother there, both sons of an eminent surveyor. The school was in existence at a much later period after Professor Feinaigle's death than you mention. There was a roll, showing the names of all boys who got good places in Trinity College, and were awarded the silver medals you speak of by the committee of the school. Where is this roll? It would, no doubt, be interesting now, as it began at an early date, and was beautifully drawn out. Some of the parties I have named, and many others, could give you, I dare say, interesting accounts of 'Lux,' but my day was long after the Professor's death. The roll would tell a good deal.—Yours, &c.,  
"AN OLD BOY."

"The letters, Mr. O'Flanagan, of 'Old Feinaiglian,' and 'An Old Boy,' are very interesting indeed, and have enabled me to furbish my memory to the recollection of some more matters. I remember the Rev. Tresham Dames Gregg as Head Master of

the Feinaiglian School, and I am aware that the noted controversialist and rival of Father Tom Maguire had strange notions on both religion and education. To say that he was eccentric in some matters would not be saying that which is untrue; but I think the noted preacher, as chaplain of St. Nicholas Within, Dublin, was the possessor of no small scholastic attainments—I might say he is the possessor of a large stock of knowledge, for he still lives in our midst, enjoying a hale and healthy old age. Strangest phenomenon of all, now that the founder of the Luxembourg is upwards of half a century in his grave, Mrs. Feinaigle still lives at the remarkable age of ninety-five, with her son by her first husband, Tresham Gregg, at one time Governor of Newgate Prison, and father of the present Rev. T. D. Gregg. Mrs. Feinaigle's son by her second husband, Professor Von Feinaigle, is for many years in Australia, and the school-roll mentioned in the letter of 'An Old Boy' is in his possession.

"I stated on one of our former visits that Von Feinaigle was believed by some in the city to have been a Jesuit originally, but he was not. He was a German baron of good family, and a Lutheran Protestant. Mrs. Gregg, i.e., Feinaigle, for some years filled the responsible position of Matron at the Rotundo Hospital, where she was much respected, and received a handsome income. As I told you previously, while with her second husband at the Luxembourg, she superintended all the domestic arrangements of that once famous school.

"The Rev. T. D. Gregg has a portrait of Von Feinaigle, painted by C. T. Thompson, of this city; also a plaster bust. I may also remind you there is a marble bust at the Royal Dublin Society House in Kildare-street.

"In addition to the pupils already mentioned who received their early education at the Feinaiglian Institution were Bishop Knox, Derry; Rev. Dr. Todd, and Dr. Walter Walsh, London.

"In respect to what 'Old Feinaiglian' says about Mr. Gregg's efforts to expel the classical authors and so forth in view of a course of sacred writings, I must say to that cause some have attributed the fall of the school, but there were other contributory causes, and probably not the least was the low neighbourhood and its outcome. The house was well fitted enough, but I have understood from several that the parents of many of the pupils withdrew their sons owing to the locality and its surroundings, which grew very bad during the latter years of the school's existence. My own long memory of the precincts northward of Aldborough House reminds me of sights and scenes that were better unpainted. Of course I only advance these reasons as contributory causes, and not the main causes that led to the fall of the Luxembourg. Dr. Gregg thinks himself that sufficient merit has not been given to Von Feinaigle for his excellent system; and in believing thus he is just to the memory of his esteemed stepfather. In the first canto of 'Don Juan' there is allusion to the Art of Memory taught by the founder of the Luxembourg. In the eleventh verse the great poet speaks thus:—

"Her memory was a mine: she knew by heart  
All Calderon and greater part of Lope;  
So that if any actor miss'd his part  
She could have served him for the prompter's copy;  
For her Feinaigle's were an useless art,  
And he himself obliged to shut up shop—he  
Could never make a memory so fine as  
That which adorned the brain of Donna Inez."

"In respect to the religious element introduced at the Luxembourg, I believe Dr. Gregg does not think that it did not receive attention. The question is, of course, a matter of opinion, and the living whilom head master is entitled to hold his views notwithstanding that they are stoutly contested. There are one or two points in 'Old Feinaiglian's' letter worthy of particular note wherein he states about the Luxembourg being the very first application of the joint stock principle to the system of education, as

also the 'analogous improvements' said to have taken place in Trinity College.

"Although I have already given you some detailed particulars, on our former visits, of the constitution of the Feinaiglian Institution, it will not be amiss to give you a few more as well as a reference. In a 'Picture of Dublin' published by Allen & Sons in Dame-street, 1821, I find that—

"The Institution received its name from the late Professor Von Feinaigle, a native of Germany, who in the year 1813 visited Dublin, after having previously delivered public lectures in various parts of the Continent of Europe, and in Great Britain, on the subject of mnemonics and methodics, under the latter of which heads he treated of the various modes of conveying elementary instruction to the youthful mind. Several gentlemen who attended his lectures in Dublin, themselves the fathers of families and members of learned professions, conceived that it would be most desirable if the professor could be induced to put his system of instruction into execution in some one of the private schools of Dublin. He consented to do so without any remuneration, but they could not obtain the consent of any schoolmaster to whom they made application, with one exception, and in that instance so many obstacles were thrown in their way that the attempt was abandoned. Reluctant, however, to lose such an opportunity of benefiting their own children and the community at large, they proposed to the professor to raise a sum of £1,500 by subscription, for the purpose of establishing a seminary under their own exclusive government, where he might furnish before his departure from Ireland a practical proof of the value of his system of education. The proposal was acceded to, the money subscribed, two houses were taken at Clonliffe for the purpose of instituting this experiment, and the Institution was opened for the reception of pupils on the 13th September, 1813. So great and flattering was the success of the undertaking, that the professor was thereby induced to fix his residence in this country, and to advance a sum of £4,800 for the purpose of taking Aldborough House, and fitting up that magnificent mansion on a scale suitable to the prospects which then opened on the Institution. The proprietors, forty in number, subscribed £100 each, the whole of which capital, together with surplus profits, in all amounting to upwards of £15,000 has been expended in rendering Luxembourg (the present designation of the mansion) one of the most complete and splendid establishments of its kind in the empire."

"The picture, sir, was a bright one for the 'Picture of Dublin,' but what the picture has been since and is now, we have already seen.

"I cannot with justice bring my sketch to a close without a few words concerning the life and labours of the last Head-Master of the Luxembourg, the Rev. T. D. Gregg, D.D. He lives still, nearly as lively and as healthy as he did upwards of forty years ago, as steadfast to his early opinions and extreme religious views. He believes he hewed to pieces the greatest modern champion of the Church of Rome. He believes he was the acknowledged leader of Dublin and of Ireland. He believes that he turned six members of Parliament out of their seats, and supplied their places with six loyal men devoted to the Constitution and the throne. He believes he was enabled, by the hand of God, to open and unseal the sealed mystery of Daniel, and that God sent him to America at one period of his life, there to proclaim the wondrous fact that will revolutionize and regenerate the world. He believes that the mariner's compass is in the Bible; gas is in the Bible; photography is in the Bible; telegraphy is in the Bible; but, above all, steam locomotion is in the Bible. Nay, he believes that an actual and accurate description of the steam locomotive itself is in the Bible. Of course, all a riddle—a dark and obscure riddle, 'rendered a thousand times more dark by our suffering our right eyes to be thrust out, and all our senses to be ob-



fascated.' He believes these things, and many others, and has proven these truths to his own satisfaction, and to some other people's, too. He accomplished this labour some years ago, in the heyday of his manhood, when he was stalwart in arm, active in limb, raven in hair, enthusiastic in hope, vast in purpose, and contemplating universal reform—the reform of the education of the world; the reform of the people of Ireland: the overthrow of 'every system of error, and falsehood, and wrong, and the reduction of the whole earth to the condition of Salem under Melchizedek.' The Rev. T. D. Gregg, sir, has preached in Irish centres at home and abroad, and attacked 'Pope and Popery' right and left, surrounded, hooted, and hunted, and nearly brained to death on several occasions for being a 'heretical swaddler.' He has stated as much himself of the loves of his own simple-minded countrywomen. A man who could put to rout 'whole companies and battalions of his countrymen whom he conquered by the doxology,' and put to flight by the strains of the 'Old Hundredth,' was no uncommon general.

"The Rev. Tresham Dames Gregg, sir, has been in his day a newspaper speculator, editor, and an author of various productions. While in England, at Sheffield he published the *Witness*. He was the proprietor and editor of a Dublin daily paper and a London weekly one, by which he lost £2,000. He published two large volumes of sermons on the 'Apostolic and Evangelical Characteristics of the Church,' and on 'A System of Scriptural Philosophy.' He published 'A New System of Moral Philosophy.' He published two tragedies, by which he made £400. He published a new 'Methodisation of the Hebrew Verbs,' which went through three editions. He published an essay on "Protestant Matters," and acknowledges he made £1,200 by it, and led to the renewal of Convocation. He became the purchaser of a London chapel, by which in six months he stated he lost £1,200.

"Want of space, sir, forbids me to extend the list of the labours of the whilom Head Master of the old Feinaigian School. If he has failed in his hopes, he has at least done sufficient to be remembered by his own countrymen, and earn a special niche for himself when the mortal coil is shaken off.

"In establishing a school once in the sister kingdom, Dr. Gregg gave expression to the following sentences, which, when viewed in the light of his teachings at the Luxembourg, may be suggestive. 'I'll make better Latin and Greek scholars than they can do at Eton or Harrow, Westminster or Rugby, and their reading shall be all divine; they shall learn *Latin and Greek out of the Holy Bible*, while I am endeavouring in every way to make their Greek and Latin convert their souls. My grand, my chief, my principal business shall be to convert souls, and I know that in that way I shall best promote their interests as scholars too.' Dr. Gregg had a poor opinion of the late Lord Macaulay; he admitted he possessed a peculiar talent, but he viewed him as 'the Corypheus, of *apropos*, the Magnus Apollo of literary and political reminiscence; the *facile princeps* of leading-article power; the Zoilus and Aristarchus of bores and boredom.' He believed, alas! that 'a more dangerous, a more untrustworthy, a more time-serving combination of dead-carcase phosphorescence never flashed for the delight, the amusement, and the delusion of mankind.' He read Macaulay with delight, nevertheless, but it was with 'the delight of the philosopher, when with scalpel in hand and microscope at eye, he admires the beautiful tissues and delicate organism of a Noachian toad.' Macaulay's poetry in movement reminded Dr. Gregg of 'the stalwart stamping and tramping of a Highlander in a reel, and in its tone of the deafening corn-creek music of the Scotch bagpipes.' He looked upon the historian as the 'cannie Scot,' who took care not to 'eat mutton cold, or cut blocks with a razor.' Enough, perhaps—T. D. G. lives, as I have already said, in our midst, and, as he stated in regard to

his location in Sheffield once, his words may be applicable at home:—'I was once part and parcel of your ecclesiasticism; a piece of your civic furniture; a joint, or screw, or crank in your social system.' While our hero lives he must exist as a part of our social system, and his death (whenever it takes place) must call up a host of memories.

"Before taking leave of Novo Noster-street and precincts, I must remark, that in the maps of the city at the close of the last, and for some years into the present century, the portion of the street between Ruckingham-street and the Circular-road, was marked down as Amiens-street. The latter name for many years has been applied solely to the North Strand-road, between the Dublin and Drogheda Railway Terminus and the above-mentioned road. The 'Diamond' quarter is also marked down in the eighteenth-century maps, with an entrance for Novo Noster-place, and another approach from Gardiner-street, called Belle-street. The entrance from Somer's-hill, called Hamilton's-lane, is not marked down in the map of the city in 1818 or previous, but in the maps of subsequent years it appears. Was the improvement effected by taking down a house on Somer's-hill? or did the lane exist from the commencement? are queries which I am unable to answer. The 'Diamond,' as long as I remember, had a bad name, and it sticks to it still, whether deserving or not on the part of its residents. The low ground on which the 'Diamond' stands, between Lower Novo Noster-street and the rising ground of Somer's-hill, extended over to Ruckingham-street and Aldborough House, and was used often as a 'shoot.' It was only between the last twenty and thirty years that the middle unbuild-upon portion of Lower Jutland-street was filled up by the Corporation scavenger carts. A deep ravine separated the street in two previously. I forgot to mention on our former visits that at 17 Lower Novo Noster-street lived for some years (1829-32) a rather noted public character 'on town' named Willoughby Fife. I may hereafter have occasion to mention him in another direction. I think now, Mr. O'Flanagan, I have pretty well exhausted all that is worth knowing about the locality, so let us bid Novo Noster-street a farewell."

Thanking our friend for his painstaking trouble, we turned homewards after making an arrangement for a future visit with the "Oldest Inhabitant" to another quarter of the Unknown City.

#### SPECIALITIES OF PEOPLE IN DOWN AND ANTRIM.\*

ASSEMBLED as we are in the town of Belfast—a borough which occupies part of both counties and is their joint capital—it cannot but be interesting to examine what are the specialities of the people on both sides of the Lagan, more particularly what are the causes of those specialities; for we may be assured that causes exist, and that they have produced effects much more marked than is generally supposed.

If we commenced at an early period we should require to notice the "pre-historic people," who gave to us our flint and bronze implements, built our earth forts, and erected our cromlechs. We should then require to notice the Celts, whose children and children's children surround us; also the Scythians or Scots who became Celticised, and who gave their name to Ireland as Scotia-Major. We should also require to notice the Anglo-Normans, who in more modern times occupied Downpatrick, Newry, and the barony of Lecale. But certain smaller contributions of population, though very interesting, are, for the present purpose beneath our notice—as the settlement of the French damask-weavers at Lisburn, and certain Germans, known as Herrnhutters, United

Brethren, or Moravians, at Ballykennedy, near Ballymena, Ballinderry, and Kilkeel.

There is a period in history at which three distinct streams began to flow—each of them, it is true, the product of numerous tributaries—and, with very slight admixture of their waters, they continue to flow, distinct and distinguishable, to the present hour. An important section—indeed the most important in the civil history of the district—commences at the beginning of the 17th century, when law and order were established, and permanent prosperity began to dawn. The three sets of people, which, for simplicity, we may take in inverted order, were the English, Scotch, and Irish.

Not to detain you with details respecting the "Plantation of Ulster," or the condition of the country, I may say briefly that a large portion of both counties was forfeited land, and that the surface of the country presented a large amount of forest and bog. This last fact is distinctly stated in most of the grants.

The English may be said to have entered at Carrickfergus, under Sir Arthur Chichester, ancestor of the Marquis of Donegal; and he had also possessions in and around Belfast, though the way between the two towns was little inhabited, and scarcely passable. The next great English planter was Sir Fulke Conway, ancestor of the Earls Conway, whose large and valuable estates descended to the Marquis of Hertford, and of late chiefly to Sir Richard Wallace. His territory comprised the whole or the greatest portion of eleven distinct parishes, extending from Lambeg near Drumbo, to Lough Neagh, and occupying nearly the whole of the barony of Upper Massereene. Next to him came Colonel Moyses Hill, ancestor of the Marquis of Downshire, whose property came to comprise the whole ancient territory of Kilwarlin, reaching to within about a mile of the town of Moira. Here he was joined by Sir George Rawdon, ancestor of the Earls of Moira and the Marquis of Hastings; while Alderman Hawkins, of London, and John Magill, both now represented by the Earl of Clanwilliam, extended to the borders of the County of Down. In short, not to mention small outlying communities such as Newry, Inch, near Downpatrick, and Ballycastle on the north coast, the English settlers extended, in an unbroken line, from the tides of the channel at Carrickfergus across portions of four counties—Antrim, Down, Armagh, and Tyrone. They stopped short near Pomeroy, in the last-named county.

The Scotch came less under distinguished leaders and more as independent units of population. It is true that there were the Hamiltons in Down, Earls of Clanbrassil and ancestors of the Earls Roden and Dufferin, and the MacDonnells, M'Neills, M'Naghens, Macalisters, and others in Antrim. But Ireland was to Scotland what the United States, Canada, and Australia have been of late years—it was the land of hope, the field of the adventurer, the home of the emigrant; where land could be had at a nominal cost, and where with a little work any man could make for himself a home. At two points, Scotland stretches out her arms to Ireland—the Mull of Galloway, near Donaghadee, and the Mull of Cantyre, near Rathlin and Ballycastle. In the infancy of navigation these were the high-roads of popular ingress; so that the Scotch entered Down by Bangor and Donaghadee, and pushed inland by Comber, Saintfield, and Ballynahinch to Dromara and Dromore; while in Antrim they proceeded by Islandmagee, Ballyclare, Antrim, and Ballymena, surrounding the high lands, and reaching the sea again at Bushmills and the Causeway. In 1633 and 1634 the emigrants from Scotland by way of Ayrshire were about 5,000 per annum, mostly males, and many of them discontented farm servants. So numerous were they, in comparison with the other elements of population, that they came in time to occupy much of the intermediate and waste land lying between themselves and the other two sets of population.

The Irish, or natives, broken and con-

\* "The Origin and Characteristics of the People in the Counties of Down and Antrim: an Ethnological Sketch." Read at Belfast meeting of British Association by the Rev. Canon Hume, Liverpool.



quered, reduced also in number by war, famine, and disease, occupied, when possible, strong positions. They still regarded as specially their own the land which was least accessible or least desirable, and fled to the hills and morasses. It is curious to see how popular language has embodied these facts in such expressions as "Mountain people," "Back-of-the-hill-folk," "Bog-trotters," &c. There they still remain, though many of the humbler classes have found permanent homes in the towns. Newry, Mourne, and Lecale changed the lords of the soil, but retained the population; while some of the natives were designedly established among the strangers that they might learn the arts of peace. Such were the Laverys of Moira.

Having now localised the three great elements of population, let us examine their respective characteristics. One of the first effects of the settlement of the English and Scotch was a change of the names of places. This took place in various ways. 1. Certain Celtic words were expressed by English ones of nearly the same sound. Bally-maes (the place of the plain) becoming Maze, where there is a well-known racing-ground; and Casan, a pathway, becoming the Cash-road. On the same principle Abermaw in Wales, became Barmouth. 2. Certain other Celtic words were merely translated, and expressed by their English equivalents, as Bally-rashane, St. John's Town; Ballygowan, Smith's Town; Ballyknock, Hill Town; Kerbaan, White Head; Slieve-bawn, the White Mountain; Tober-donagh, the Holy-well; Lough-beg, the Wee Lough. 3. A change of name frequently took place without adding much to the simplicity of the meaning; thus Rathkel-tair (the place of the rath by the church) became Downpatrick; and Lisnegarvey (the port of the gamester) became Lisburn. 4. But the great change was the introduction of English and Scottish surnames, each of which shows, like a monumental inscription, the name of the present possessor, or perhaps, of a former and long-forgotten one. As illustrations, it may suffice to mention Hill-hall, Hill-town, and Hills-borough, named from the members of the Downshire family; Gill-hall and Gill-ford, from the Magills; Seaforde, Mount-stewart, Port-stewart, Echlinville, Reilly's Trench, &c. Names of forgotten possessors are recorded in such words as Acre-M'Cricket and Isle-M'Cricket, Jordan's Acre, and Jordan's Crew, Dodd's Island, Russell's Quarter. There are between forty and fifty places in the County of Down alone in which family surnames are added to the prefix Bally, as Bally-Adam, Bally-Copeland, Bally-Macateer, Bally-Stokes, Bally-Ward, Bally-Walter. The same principle appears carried out in such names as Rath-Cunningham and Rath-Mullen, Tully-Branagan, Lisna-Mulligan, Tir-Fergus, and Tir-Kelley. Certain other names, not commemorative of families, were slow in taking root, as Annaborough for Dromara, which is now scarcely recognised.

Allusion has been made incidentally to surnames; but the great direct evidence which these afford is of great interest.

Among the Celtic people, in the mountains and the marshes, we find such names as M'Laughlin, O'Reilly, M'Cartan, M'Greedy, M'Convery, M'Gorrian, O'Hara. In the English districts, we find Emerson, Green, Carson, Benson, Turner, Stanfield, Scandrett, Brown. In the Scotch districts, we find M'Cutcheon, Hamilton, M'Gregor, Wallace, Stuart, Dunbar, Kirkpatrick. There are also a few Welsh names interspersed, as Morgan, Parry, Uprichard, Hughes, Jones.

If we examine the locality of the various surnames, we find upwards of 800 in Down, and upwards of 700 in Antrim; and yet there are ten names in each county which represent one-tenth of the gross population. Of course, then, there are 790 in the one case and 690 in the other, which represent the remaining nine-tenths of the population. In other words, there are about ten names in each county which occur on the average eighty times as often as the remaining names do.

The ten leading names in Down, giving

those of most frequent occurrence first, are—Smith, Martin, M'Kee, Moore, Brown, Thompson, Patterson, Johnson, Stewart, Wilson.

The ten in Antrim are—Thompson, Wilson, Stewart, Smith, Moore, Boyd, Johnson, M'Mullen, Brown, and Bell. The two lists, it appears, comprise only thirteen names, seven being common to both. For the united population, the first is Smith, the second Thompson, and the third Moore.

The distribution of surnames is a subject also deserving of attention. Of course the names just noticed as of frequent occurrence turn up everywhere—in Presbyterian and in Protestant Episcopal districts—among English and among Scotch settlers. Thus, we find Moore and Smith, Thompson and Stewart, Hamilton and Patterson. But there are others which occur almost exclusively at one spot, and where the numerous people of the same name appear like Highland clans, or as if nearly all related to each other. Thus, in County Down we have Annett in Mourne, Fitzsimons in Lecale, O'Hara in Upper Iveagh, and M'Keating in the Ards, occurring at those points in large numbers, but found scarcely anywhere else. In Antrim, in like manner, we have Coates in Upper Belfast, Pinkerton in Upper Dunluce, M'Caughan in Carey, and Turtle in Upper Massereene, names which occur scarcely anywhere else.

There is also a process which goes forward steadily of the manufacture of surnames, so that it is sometimes difficult to identify an individual. In the Scotch districts, for example, there is often a corrupt form of a name and a correct one, and occasionally they are widely divergent. Thus, Arbuthnot becomes Buttonit; Cumming, Kimmins; Brereton, Bruerton; Scandrett, Skendritch; and Frizell, Frazure. In the English districts a singular form of surname is often known among the common people, in the plural only. Thus Sefton becomes Sevens; Baring, Barns; Byrne, Burns; Hope, Hopps; Mather, Mathers; Humphrey, Humphries; Stoddart, Stotharts; and Graham, Grimes. In the Irish districts the changes are more marked. Thus, bearing in mind that Rob Roy was really Rob Roy MacGregor, and that Roderick Dhu was Roderick Dhu MacAlpine, or red Robin and dark Roderick respectively; so we have in these counties Sorley Boy, that is yellow Charley (MacDonald), and Hugh Boy, or yellow Hugh (O'Neill). But in course of time the proper surname was lost in particular families, and the personal designation, indicating complexion, took its place. In my boyhood I knew Hughie Roe, but his proper name was Lavery, and he was known as ruddy Hugh; while Molly Bawn (the subject of a pathetic song) was only fair Molly Lavery, a member of the same clan.

Further, we find both Christian names and surnames translated, just as we found the names of places passed on from one language to another; and the result is that people have one name "to go about the doors with," as they say, and another and more respectable one, used only like their Sunday clothes, when they go into company. Hence, the man who is known near Castlewellan as Oiney M'Gurnaghan, when he comes to Belfast with his ass and cart, is Owen Gordon. So, also, Harry Hamish, the pugilist, when he goes to a fair or attends a temperance meeting, is Henry James; and a lad near the Causeway is Shoneen M'Elshender, when assisting to cast the salmon nets, but Johnnie Alexander when he appears at a shop in Bushmills or Portrush. And our old acquaintance, Biddy M'Fetrich, of the kitchen, is identical with Bridget Fitzpatrick of the parlour.

(To be continued.)

#### THE LATE MICHAEL BANIM.

THE death of Michael Banim is another removal from the link of racy national Irish writers whose forte it was to depict the virtues, vices, pastimes, and customs of our people in tales and sketches, which, though fictional in form, had truth for their foundation. Between thirty and forty years ago Ireland could boast of an almost unbroken

and brilliant galaxy, some of different schools, but all moulding their thoughts from similar materials. Feminine as well as masculine pens added honour and maintained the prestige of the party. They were the Morgans, the Edgeworths, the Griffins, the Carletons, the Lovers, the Levers, the Banims, the Maxwells, the Halls, and a host of other and minor writers on the Irish and English magazines, some of whom are still in our midst, and a few, like the late Sheridan LeFanu, but recently departed. Michael Banim has now departed at the ripe age of eighty-one, after surviving his famous brother John (the co-labourer in several of his works) upwards of thirty years. The "Tales of the O'Hara Family" are too well known to need recapitulation. It is not many months since we gave some particulars of the Brothers Banim, and the claims of Michael upon his countrymen. It is but a short time since he resigned the poor appointment he held as Post Master of Kilkenny, and received the miserable superannuation of about £40 a-year. The Committee of the Literary Fund, under Lord Houghton's chairmanship, in recognition of his joint authorship with his brother, gave a grant of £60, and the sympathy of his Kilkenny brethren supplemented this by another contribution. The whole income was, however, too small even for the comfort of the declining years of Michael Banim alone; but, added to this, the talented Irishman had a delicate wife and two daughters beside dependent upon him. We hope, if the wife and daughters of Michael are not found fit subjects for a Civil List pension, for reasons that are often peculiar to Government action, that his countrymen, at least, and countrywomen will remember the duty they owe, and act accordingly. The "Banim Testimonial Committee" must not be dissolved, but enlarged, and the lists kept open until sufficient sums are collected to make provision for the future wants of the family of Michael Banim. The death of the deceased took place at his late residence at Booters-town, near Dublin, on Sunday, the 30th ult. We annex the following particulars of the funeral from our contemporary, the *Kilkenny Moderator* of the 5th inst. :—

"On Wednesday last, the remains of the last survivor of the 'O'Hara Family' arrived in his native city for interment in the grave of his parents and of his previously departed brother and literary copartner. A large number of the citizens, of all grades and classes, had assembled on the railway platform to receive the coffin, and form the funeral procession. Mr. Poe and Mr. Prim, honorary secretaries of the 'Banim Testimonial Committee,' acted as chief mourners, and the members of the Corporation, headed by the Mayor, Mr. P. Murphy, and the ex-Mayor, Mr. Kenealy, wearing crape weepers, and preceded by the sword and mace-bearers, with the insignia of civic office draped in crape, followed the coffin. A hearse had been provided, but a large number of the humble fellow-townsmen of Michael Banim insisted that the honour of bearing his remains should be assigned to them, and they lovingly carried the coffin on their shoulders to the Roman Catholic Chapel of Maudlin-street, in the cemetery attached to which the family burying-place is situated, the scene of some of the most striking incidents of two of Abel O'Hara's own best written tales—'Father Connell' and 'The Ghost-Hunter,' and immediately adjoining the locality which supplied the name for his story of 'The Mayor of Windgap.' The religious services being concluded, the remains of one whose name will never be forgotten whilst Irish literature endures, was consigned to the grave amidst the terrific downpour of a thunder-shower, which burst forth from the darkened sky at the moment, as if the very elements added the tribute of their mourning for the last of the 'O'Hara Family.' We learn from a friend who was frequently with Mr. Banim during his last illness, that his death resulted from anasarca in the lower extremities, the sudden subsidence of which produced water on the brain and in the vital organs of the chest. Before the last change he was perfectly conscious of his danger, and prepared. He made his will two days before he died, which was witnessed by his friend and fellow litterateur, Dr. R. R. Madden, and his principal medical attendant, Dr. Griffin—the object of a will being simply to make some necessary arrangements respecting local charitable trusts with which he was connected."



### THE NEW CHURCH OF ST. JOSEPH, BERKELEY-STREET.

We give with present issue an illustration of the new R.C. Church of St. Joseph, now in course of erection in Berkeley-street, from the designs of Messrs. O'Neill and Byrne. The site is on the east side of Berkeley-street, and in close proximity with the façade of the Mater Misericordiæ Hospital. The style is that known as the Middle Pointed. The plan comprises nave, aisles, transepts, and side chapels. Within the walls the length will be 120 ft.; the width across aisles 58 ft., and across transepts 83 ft. The height to apex of nave roof will be 75 ft. At the western end of north aisle there will be a tower, surmounted by a spire 190 ft. high. The principal entrance will be from Berkeley-street through a double western doorway. There will also be an entrance through the tower and one in each of the transepts. All the doorways will be elaborately moulded, and enriched with polished granite columns. Internally the nave will be divided into bays by polished marble columns supporting the aisle arches. The sanctuary will have an apsidal termination; it will be flanked by side chapels, and separated from the nave by a richly-moulded arch springing from marble dwarf columns. The openings off the aisles will be double transepts, lighted by three-light traceried windows. The clerestory will have a range of two-light windows.

The ceremony of laying and blessing the "foundation stone" was performed on Sunday, the 5th inst., by Cardinal Cullen, in presence of an immense concourse of spectators. The bands of the Artane Industrial School and the St. Vincent de Paul Orphanage were stationed in the vicinity of the building, and played some well-selected airs previous to and after the ceremony.

Mr. Cormack, of Talbot-street, is the builder.

### SIR JOHN RENNIE, CIVIL ENGINEER, ETC.

It is strange—and perhaps 'tis not, all things considered—that the British ordinary newspaper press can scarcely afford room for a paragraph announcing the death of a great engineer or architect, while they can devote whole columns to tiresome details of the life of a mere political entity, or other entity, who never evolved from his unmoistened soul a measure of real practical good. Notices of the decease of the late Sir John Rennie have been sparse, indeed, although, before the present generation were born, his name, his brother's name, and that of his aged, clever father, were known far and wide from the character of their works. The deceased, who was in his eighty-first year, designed and executed several works of magnitude connected with inland navigation—docks, harbours, &c. He drained the Lancashire Marshes and constructed the Whitehaven Docks. He executed London Bridge, though that work was designed by his father, John Rennie. The father designed and executed numerous works, which proved his acquirements as a civil engineer, and worked as an operative machinist in his early years, but settled in London in 1780. John Rennie lies interred in St. Paul's Cathedral, where he was buried in 1821. He was a native of Phantassia, in Haddingtonshire, Scotland, where he was born in 1761. His gifted son, Sir John, was a Fellow of the Royal Society, a Knight of the Tower and Sword of Portu-

gal, and of Wasa of Sweden, a member of several learned and scientific societies, and the author of some works on harbours, breakwaters, drainage, and general engineering matters. George Rennie, another brother, and eldest son of John Rennie, was also eminent in his profession, and was many years in partnership with his brother, and carried out several engineering works at home and abroad in conjunction. In Russia, George carried out many works of great magnitude. The firm over which he and Sir John presided constructed engines for the vessels of French, Russian, Spanish, and Belgian Governments. George Rennie was the author of several important works on subjects connected with his profession, two of the more important being, "Experiments on the Strength of Materials," and on "The Friction of Solids." In his early life, like Sir John, he assisted his father in the execution of several of his great works. The lives of the Rennies, father and sons, deserve to be worthily written, for they embody much of the history of the improvements which have added to the moral and material greatness of the British Islands in Art and Science.

### CIVIC LYRICS.—No. LXIX.

#### WAYS AND MEANS.

Factotum sat at the Council Board,  
And look'd o'er all the plans;  
And many believed Factotum's word  
The best of any man's.

He play'd his cards well, and mostly "jink'd,"  
Looked grave, or laughed with glee;  
And always said, as he slyly winked,  
"My friends, 'leave that to me'!"  
Leave that to me!

The Council were wise and prudent men—  
Factotum told them so;  
There might be a fool to every ten,  
But fools are scarce, you know.  
Dupes there may be, but even the dupes  
Need some cure for their phlegm;  
And they'll have it too, with wines and soups—  
Oh, just—Leave that to them!  
Leave that to them!

Mr. Public Opinion, they say,  
He smells at last a rat;  
I met him "on town" the other day,  
Strong, determined, and waxing fat.  
He knew as much as I knew—how strange—  
Of the traitors who trim;  
You may depend he will make a change—  
Oh, just—Leave that to him!  
Leave that to him!

CIVIS.

### THE MEDICAL OFFICERS AND THE IRISH HEALTH ACT.

On Wednesday last a meeting of the Irish Poor Law Medical Officers was held to consider the Irish Public Health Act and the position of the Poor Law Medical Officers in respect thereto. To say that they are dissatisfied would be only to say what the majority of the Irish public know; and we fear before a twelvemonth passes over they will, as a body, feel more dissatisfied. Resolutions were adopted approving of the provisions of the statute; and the several speakers referred to the increased importance which the act imparted to the duties of medical officers, and advocated the necessity of a corresponding increase being made in their salaries. To bring the remuneration of the Irish public health medical staff up to a par with the average attained by the English staff, it was stated that between £45,000 and £50,000 annually would be required.

It must be admitted that the Irish medical officers under the Poor Law have been miserably paid; and if the sanitary duties they are expected to perform are to be performed with any show of efficiency, they will need to be better paid. We have our own opinions as to the capacity needed for the efficient discharge of sanitary supervision under the Irish Health Act, and we have misgivings as to the working of the act in rural districts. Dr. Grimshaw regards the passing of the

Irish Health Act too often from a mere medical point of view, and many of his brethren do the same. He considers the Poor Law Medical Officers have now confided to them the whole of the medical service of the country, preventive and curative, besides the preparation of the vital statistics of Ireland; and that what was formerly simply a dispensary officers' association had now become, under the new act, the association of the public health service of Ireland. A new field of labour is certainly open to medical officers, and we trust they will bring honour to their profession and health into every homestead by the exercise of their duties.

Sir Dominic Corrigan, the President of the Association and chairman of the meeting, remarked wisely in reference to Dr. Grimshaw's observations, that medical men were arriving at what was the office of their profession—that was, preventive medicine as distinguished from curative medicine. "He recollected well when they never passed a thought on preventive medicine or preventable disease. They allowed sickness and accidents to occur that were preventable, and then they endeavoured to cure them. Now, their proper duty was to prevent disease that would otherwise destroy their population." These were honest words. Would to God they had been uttered by medical men one hundred years ago, or even a quarter of a century ago! We remember well when sanitary science stunk in the nostrils of nearly all the doctors of Dublin, and when cures were adopted far worse than the diseases.

We are glad to see that the medical profession has become or is becoming alive to its proper functions; and we hope they will excuse a public journalist (who, though not a medical practitioner, has laboured honestly and long for the cause of prevention instead of cure) for reminding them of their duties. In the matter of remuneration they have our hearty sympathy, as they will have our support. Time, labour, and proper qualifications cannot be had from a miserable stipend. Skill, whether possessed by the medical officer or the mechanic, is entitled to a fair reward. The nation is dragged down by incompetence in several fields of labour; yet, while acknowledging the fairness of open competition in all public contracts in the matter of the public health and its administration, a cheese-paring economy might, and would probably in many cases, be disastrous. The same rule applies to the enlisting and remuneration of architects, engineers, and others in matters of a sanitary and professional character.

### THE DISPOSAL OF SEWAGE.

On the important subject as to the best means of disposing of town sewage, Dr. Faussett, of Clontarf, has addressed a letter to a morning contemporary, in which he says:—"The several plans proposed by engineers for the purification of the River Liffey all seem to tend in the same direction—viz., the carrying of the sewage out as far as possible into Dublin Bay, and so getting rid of it for ever; but here, as in every other scheme in which the laws of Nature are disregarded, it is much to be feared that while attempting to escape a lesser evil we may possibly fall into a greater. The sewage of a large city, loaded as it is with quantities of organic matter, in a state of decomposition, when acted on by the sulphates that abound in sea-water, will be found, during at least certain seasons of the year, to generate immense volumes of sulphuretted hydrogen and other deleterious gases, and these, being carried by the east winds along the coast, must penetrate to the heart of the city itself, and possibly bring a similar pestilence to that which devastates the western coast of Africa, to our very doors. It has been stated by engineers, as the result of certain experiments recently made, that if the sewage be carried sufficiently out to sea it will be dispersed by the winds and







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waves, and that we shall hear of it no more; but such hopes are fallacious, and it is sure to be deposited by the tides, and that in large quantities too, on some of the adjoining shores, and the sea itself must, in the course of time, become extensively contaminated by its presence. The singular effect of sea-water off the coast of Sierra Leone in corroding the copper sheeting of ships led to a very careful investigation of this subject many years ago, when it was clearly demonstrated that sulphuretted hydrogen gas could be detected in sea-water along these devoted shores over an area of 40,000 square miles, whilst the effect on the health of our troops during the late Ashantee war is too well known to need any other comment than this, viz., that though tropical heat may impart increased energy to the physical changes alluded to above, it would yet be a rash experiment, even in this temperate clime, to subject ourselves unnecessarily to the operation of like agencies at home. I venture, therefore, to submit that the sewage of Dublin ought not to be discharged into either river or sea until first deprived of all organic matter, and this, it is now well known, can be effected by simple chemical means. A very obvious and comparatively inexpensive agent, however, for deodorizing night-soil, viz., peat, and its own fertilizing properties, would point out this substance as a useful medium for admixture with sewage, not only to deprive it of offensiveness, but to combine with it in the manufacture of a useful, if not exceedingly valuable compost, that would be purchased with avidity by the agricultural classes. To suggest how this might be accomplished would be to trench on the province of the engineer. It is sufficient, perhaps, to point to our canals, and the further development of our industrial resources, since to return to the earth in a state of decomposition and decay those substances which, under new forms of organization, we hope to receive again from the earth in renewed freshness and value, is to follow the course of Nature; but to send such substances adrift into the ocean is contrary to her laws, and sooner or later Nature will have her revenge.

"Naturam expellas furca, tamen usque recurret."

## NOTES FROM THE WEST.—II.

THE bay of Westport (Clew Bay) is one of the most picturesque in Europe, there being no less than 360 islands in it (*vide* Capt. Beecher's Chart). The largest of these, Clare Island, domineers the rest. On descending the hill at the quay of Westport, it shows itself to the tourist by its bold and gigantic proportions, its northern sierra-like shape contrasting with the southern half, the whole almost blocking up the channel, and shutting out the wild waves of the tempestuous Atlantic.

I, with four or five others, made up a yachting party to Newport Regatta at the end of last month. The course our *compagnons de voyage* took to Newport was the most tortuous and intricate one imaginable, in and out through islands of *emerald green*, the verdure of these not belying the exquisite greenness for which Ireland gets that euphonious synonym. The regatta was well attended by the gentry of the place. Foremost among them was the lord of the soil, Sir George O'Donel, Bart., who took a lively interest in the sports, and conversed very familiarly with the frieze-coated peasantry, his tenants.

Here I would remark the sprinkling of the fair sex from the *elite* of Newport and Westport, and the blue and red-petticoated peasantry of Burrishoole and Achill, to whom I must give the palm as the most beautifully pleasing specimens of the softer sex I have ever met with so far in my pilgrimage through life.

The regatta terminated with a duck hunt; our yacht, the "Sprite," of Rossbeg (P. Hopkins, skipper) accidentally formed the goal. The poor duck, as a *refugium peccatorum*, made for our craft, flung himself

under the keel, dived, and was captured. We then sailed for Clare Island, leaving Murrisk Abbey and Old Head on our left, with the sides of Croagh Patrick shining like streaks of gold and emerald green, the opposite or northern shore presenting a most repellent aspect.

A legend of Clare Island in next.

J. N. GILDEA, Mem. I.C.E.

Rossbeg, Westport,  
12th Sept., 1874.

## THE O'CONNELL MONUMENT.

THE death of Mr. Foley appears to cause some embarrassment to the O'Connell Committee; but had they performed their duty long since, the monument would have been completed, paid for, erected or ready for erection, instead of in its present unsatisfactory state. We do not refer to the matter from political reasons, but from ones quite apart. Although we suggested the centenary of O'Connell's birth being a suitable time for inaugurating his statue, if his whilom admirers were really in earnest, yet we had misgivings that year after year would be dilly-dallyed away before the committee would complete their task. O'Connell is over a quarter of a century in his grave, and a decade has passed over since we had a ceremony in Sackville-street in laying the foundation-stone. At a meeting of the subscribers held in 1866 a committee of thirteen was appointed, and several meetings were held at intervals since in the rooms of the City Hall, beginning in driftless talk and ending in promises and make-believe progress. There is still plenty of time to complete the statue by August next, if the business of the committee is properly performed. There is not one real difficulty in the way. If we are to have the public statue of a public man who played no unimportant part in the history of his country erected on the centenary of his birth, let there be a *bona fide* inauguration, and one not gone through over a sham figure. Every work, whether in connection with the Corporation of Dublin or wholly emanating from the council of that body, has been delayed, and time and money have been expended with disastrous results. We subjoin a summary of the proceedings of a special meeting of the committee held last week at the Mansion House:—

Alderman Peter Paul M'Swiney, J.P., presided, and amongst those present were—Denis Moylan, D.L.; Very Rev. Monsignor O'Connell; Sir D. Corrigan, Bart.; Anthony O'Neill, T.C.; William Meagher, T.C.; Rev. P. J. Gilligan; Jas. Hughes; John Martin, M.P.; Rev. John O'Hanlon; Rev. Mr. Irwin, P.P.; Alderman M'Cann; Mr. Hayden, T.C.; James Reilly, T.C.; Alderman Ryan; C. Dennehy, T.C.; Mr. Dwyer; Rev. Mr. O'Rorke; P. J. Smyth, M.P.; Henry Rochford; Dr. Long, T.C.; Thomas M. Ray, &c. The Rev. Mr. O'Rorke stated that the matter of completing the national testimony to the memory of O'Connell had been entrusted, at the meeting of subscribers held in August, 1866, to a committee of thirteen, and asked should that body be now interfered with. The chairman thought it better that the larger committee, of which the thirteen was a sub-committee, should take action at the present juncture. First, they should pass a resolution referring to the loss which they, which Ireland, and which high art had sustained in the death of Mr. Foley; then they should pass a vote of condolence with that lamented gentleman's family, and finally it would behoove them to inquire in what state they were placed by the present juncture of affairs. Sir Dominic Corrigan thought that the programme sketched by the chairman was the proper one to adopt. He had been very friendly with the late Mr. Foley, and when last in London, about three or four weeks ago, visited his studio and saw the monument. The plaster cast of the pedestal was, he had been told, complete and ready for the hands of the bronze caster. They should, however, have some report as to that from the deceased's legal representatives. He (Sir D. Corrigan) moved—"That we avail ourselves of this the earliest opportunity of expressing our deep sorrow at the lamented death of our gifted fellow-countryman, John Henry Foley, R.A., whose unexpected demise has left a void in the ranks of high art not easily supplied; and we hereby tender to his afflicted widow our profound

sympathy and condolence under her present great bereavement and affliction." Dean O'Connell seconded the proposition, which was adopted. The chairman said their next object was to ascertain how they now stood. Mr. Foley had been paid £2,000 on foot of his great work, and it had been expected that the entire monument would have been ready for unveiling on the approaching centenary of O'Connell—the 5th August, 1875. If that were now impossible, they might get a temporary statue, the pedestal being now complete, and inaugurate it. He advised that they should send forward a deputation to urge on the work. Mr. Demichy, T.C., and others, deprecated the erection of a "sham" figure. By a very little exertion they might have the entire testimonial ready on the date named. If the representatives of Mr. Foley were anxious to declare off with the contract, there were others—among them the son of another illustrious Irishman, Mr. Hogan—who would be ready and anxious to assist in the completion of the statue. Rev. Mr. O'Rorke moved—"That our honorary secretary be requested to address an official letter from this committee to the representatives of the late Mr. Foley, to know in what state the present proposed O'Connell Monument is, and what steps should be taken to insure its completion with the least possible delay." Mr. J. Martin, M.P., seconded the resolution, which was adopted. In reply to the chairman, Mr. Moylan, D.L. (one of the trustees of the fund), stated that, after deducting the payment of £2,000 made to Mr. Foley, there remained as balance to their credit a sum of between £8,000 and £9,000, together with the accumulations of interest for five or six years.

## THE PUBLIC HEALTH IN DUBLIN.

WHILE the deaths registered in Dublin show for the week ending the 31st August an annual mortality of 20 in every thousand, those for the week ending September the 7th represent an annual mortality of 30 in every thousand. The deaths from zymotic diseases in the former week were 32, and of these 13 were of scarlet fever. In the latter week zymotic diseases proved fatal in 54 cases, including 18 from scarlet fever and 5 from fever. Fifty-three of the 161 deaths of the first week were of persons under 5 years of age, and 24 were aged 60 and upwards. In the last-named week 75 of the 181 were of persons under 5 years, and 43 were aged 60 and upwards. In both weeks the deaths of the males are slightly in advance of the females. The Weekly Returns for some time back prove that zymotic diseases are on the increase. The infant mortality is large, and shows a tendency to increase. Coupled with the bad sanitary condition of the city, if we should have a severe winter, the infant mortality may be expected to be still greater.

Whilst the Liffey is being reported upon and wrangled over during the entire summer, and the streets left uncleansed, the young and aged are dying, but particularly the young, whose safety is a matter of importance to the future of the country. To parental neglect, as we have previously remarked, there is little doubt we owe much of our infant mortality.

## GAS ITEMS.

The Coleraine Town Commissioners have resolved to reduce the price of gas by 10d. in the 1,000 feet, the former price being 6s. 8d.

The town of Drogheda has been again lighted with gas, an arrangement having been come to with the company. Several additional lamps are to be provided.

NAAS.—In answer to a communication of the Commissioners respecting the lighting of this town, Mr. Daniel replies from Dublin, saying that his charges will be the same as last year. He states he has no objection whatever to the Commissioners having a meter placed in the town-hall for the lamp mentioned, the meter to be the basis for the remaining lamps in the town—the Commissioners, of course, to pay for the meter and necessary service-pipe to lamp in front of the town-hall. The Commissioners, on the other hand, consider £30 for the winter months (namely, from 1st October till 1st April) a sufficient payment for the lighting, cleansing, and caring of the 20 lamps in the town, the hours and the period of lighting to be the same as before. If this proposal be agreed to by Mr. Daniel, the necessity of having meters will be avoided.



PUBLIC RIGHTS AND PUBLIC  
NUISANCES.

THE TREATMENT OF SEWAGE—Continued.

## THIRTEENTH ARTICLE.

In all plans proposed for the treatment of sewage, sanitary considerations should take precedence of economical ones. It is the worst of economy to sacrifice the public health, or endanger it in any way, at the shrine of profit. The utilisation of sewage at a loss to a township, a city, or the nation is small compared with the loss of public health or the impossibility of maintaining it by the most perfect system of sewage treatment yet known to us. There has been a great amount of writing and discussion on the head of sewage farms; and notwithstanding successful instances favoured by local circumstances and other natural and essential conditions in connection with the soil, sewage farming can only be accepted as one of the means to the end, and not the only means for the treatment of sewage. Various methods in connection with or apart from those already known are likely to be proposed and practised for years to come, the effect of which will be to afford us experience and help us in arriving at more satisfactory results. It cannot be doubted or denied that sewage is a fertilising material, and as a manure it should be utilised as far as possible for the land; but as different clays, or even the same clays by different processes, may give us bricks, pottery, tiles, delft, &c., so may varied treatment of sewage be the means of utilising that material for several useful ends and purposes without waste. Taking matters as they at present stand in connection with sewage farming, the turning of farms into marshes by the saturating principle or otherwise involves, it is stated, a public danger, and favours the visit of endemic diseases peculiar to marshy districts. The Sewage Commissioners report that near to Milan "the population who lived in the midst of and close upon irrigated lands are subject to the same diseases as are common wherever extensive tracts of vegetation are alternately covered with water, and then exposed when comparatively dry to the action of the atmosphere under a hot sun." Marsh diseases, however, are strictly endemic, and have not been proven to extend from such irrigated meadows to the towns near. With regard to the spread of cholera and enteric fever, we have other diseases the poisons of which are contained in human excrement; we have satisfactory evidence that these diseases are not a whit more prevalent on the irrigated lands than anywhere else, and that even during these epidemics of cholera at Milan and neighbourhood no case occurred upon the irrigated meadows.

It appears then from careful examination that diseases that we should expect to have spread by such a method of dispensing sewage have not spread at all. Edinburgh and other districts afford similar evidence where irrigation has been practised for some years, and that, too, in not the most satisfactory manner. It may be taken as certain, at the same time, if too much sewage be allowed to flow over saturated land, the effluent water will be no better than veritable sewage. Noxious organic matters will not be oxydised, and consequently danger will arise in allowing the water to escape into streams or rivers from which people take their water for drinking or other domestic purposes. Enteric fever is always possible and probable under such conditions.

At Northampton enteric fever occurred among some people who drank water out of a brook that had been polluted in the manner alluded to. On the other hand Dr. Buchanan reported that out of 120 people at work upon the sewage farm itself there was no single case that could be affirmed to be fever, and that the only case of illness that could be heard of was a case of diarrhoea, and further, there was nothing to tell of the mischief done by the sewage farm itself even to persons who were themselves employed on the farm

under unexceptionally favourable conditions for breathing exhalations from the sewage. It is apparent, therefore, that the sewage should have all passed through the soil before being turned into the stream, for if sewage containing the poison of enteric fever reaches the water that people are obliged to drink, enteric fever is liable to be caught. There is little difference in the evil whether the sewage is turned at once directly into the stream or river or in allowing it to run off saturated land into the same. A knowledge of these facts ought to prevent persons establishing irrigation farms upon false or dangerous principles. Drainage undoubtedly improves the condition of the farm, but the passage of sewage through the soil is the most effectual method of destroying poisons of diseases contained in it. Without this form of filtration the effluent water must be most impure to a dangerous extent.

The advantage of drainage will be seen from what follows. In the fourth report of the British Association Committee, it appears that on the South Farm at Tunbridge Wells, a field of beans was noticed, one portion of the crop being very heavy and healthy-looking, and the other very poor and stunted. Inquiry shewed that the whole field had been equally sewaged, but that the portion where the crop was so good had been drained four feet deep during the winter, the other portion being left undrained. Here we have convincing evidence, both sanitary and economical, shewing that sewage farms should be constructed so as to constitute large filtering beds. Nuisances have existed in the vicinity of sewage farms, and may exist if care be not taken to abate them, but these nuisances have been shewn to arise entirely by the suspended matters in the sewage, which ought to be separated by some process or other before the sewage is turned in upon the land.

The provision of settling-tanks serve for the purpose, as also for the storage of any inordinate supply of sewage during wet weather, but the sludge forming at the bottom, together with the crust at the top, is likely to cause considerable nuisance during its removal. This sludge ought to be deodorised by the addition of some substance which will not injure its value as a manure. This becomes necessary whenever the tanks are so placed that any person is likely to be affected by the nuisance or smells caused during their cleansing. Here one or more of the precipitation processes may be adopted and found beneficial. General Scott's process professes to deal with these suspended matters. It is stated that the process has been found to work well in Birmingham, where it has been tried for the last two years. We understand it is also in use at Ealing and at West Ham. General Scott's process of precipitation consists in the addition to the sewage in the sewers in the town of a mixture of clay and lime. The result is, that the sewage is deodorised while in the sewers and the precipitate which forms in the tanks contains a large excess of clay and lime, with sufficient organic matters precipitated from the sewage to burn itself into cement when placed in a kiln, the fire under it being started by a few coals. It is guaranteed that "the very best Portland cement, or any other cement, is made out of the deposit, the quality being determined by the proportion of lime and clay put in." The process is stated to cause no nuisance, and the effluent water passes off in a condition eminently fitted to be applied to the land. General Scott suggests that the cement prepared may also be used as a manure for the land which requires the use of lime containing as it does a large proportion of phosphoric acid. An effort is, we understand, now being made to get General Scott's process adopted in Belfast, and the promoters state they are prepared to shew by a very few figures that there would be a nett gain to the town of £5,000 per annum secured by its adoption. As we are interested in every practicable, profitable, and sanitary process proposed for the treatment of sewage, we

feel justified in noticing General Scott's process. It seems to offer public advantage worth securing, and it is therefore worthy of careful consideration and trial.

In our next article we will consider irrigation in some other of its aspects in relation to the generation of human and cattle diseases, and discuss the advantages and disadvantages of the former treatment of sewage from its best and worst points of view.

THE EARLY RACES OF MANKIND  
IN IRELAND.\*

(Continued from page 246.)

We now arrive at a period when you might naturally expect the native annalist to make some allusion to conquest or colonisation by the then mistress of the world. Without offering any reason for it, I have here only to remark that neither as warriors nor colonisers did the Romans ever set foot in Ireland; and hence the paucity of any admixture of Roman art amongst us.

To fill up a hiatus which might here occur in our migrations, I will mention a remarkable circumstance. A Christian youth of Roman-Saxon parentage, and probably of Patrician origin, was carried off in a raid of Irish marauders, and employed as a swineherd in this very Ulster, the country of the Dalaradians, and lived here for several years, learning our customs and speaking our language. He escaped, however, to Munster, and thence to his native land of Britain or Normandy, from whence he returned in A.D. 432 with friends, allies, and missionaries, and passing in his galley into the mouth of the Boyne, walked up the banks of that famed stream, raised the paschal fire at Slane, and speedily introduced Christianity throughout Ireland.

Having finished with the Milesians, we now come to the Danes (so called), the Scandinavians or Norsemen—the Pagan Sea-Kings—who made inroads on our coasts, despoiled our churches and monasteries, but, at the same time, it must be confessed, helped to establish the commercial prosperity of some of our cities and towns from 795 to the time of the battle of Clontarf, A.D. 1014, when the belligerent portion of the Scandinavians were finally expelled from the country. During the time I have specified, Dublin, Limerick, and Waterford, belonged to these Northern people. They not only coasted round the island, and never lost an opportunity of pillage and plunder, but they passed through the interior and carried their arms into the very centre of the land. The Danes left us very little ornamental work beyond what they lavished upon their swords and helmets; but on the other hand, it should be borne in mind that there are no Irish antiquities, either social, warlike, or ecclesiastical, in the Scandinavian museums.

We are now coming to a later period. The Romans had occupied Britain, the Saxons followed: the Danes had partial possession for a time; the Heptarchy prevailed, until Harold, the last of the Saxon kings, fell at Hastings, and England bowed beneath that mixture of Normau, Gaulish, Scandinavian, and general Celtic blood that William brought with him from the shores of France. The Saxon dynasty was at an end, but the Britons of the day accepted their fate; and not only the soldiers but the Norman Barons fused with the people of that kingdom, and largely contributed to make it what it now is. This fusion of races, this assimilation of sentiments, this interchange of thought, this kindly culture, the higher elevating the lower, among whom they have permanently resided, must always tend to great and good ends in raising mankind to that state into which I hope it will yet please Providence to call him.

I must hasten on. The Anglo-Normans came here in 1172, a very mixed race, but their leaders were chiefly of French or Nor-

\* By Sir William R. Wilde, M.R.I.A. Delivered before the British Association at Belfast.



man extraction. Why they came, or what they did, is not for me to expiate upon. I wish, however, to correct an assertion commonly made, to the effect that the Norman barons of Henry II. then conquered Ireland. They occupied some towns, formed a "Pale," levied taxes, sent soldiery, distributed lands, and introduced a new language; but the "King's writ did not run," the subjugation of Ireland did not extend over the country at large, and it remained till 1846 and the five or six following years to complete the conquest of the Irish race, by the loss of a tuberous esculent and the Governmental alteration in the value of a grain of corn. Then there went to the workhouse or exile upwards of two millions of the Irish race, besides those who died of pestilence. Having carefully investigated and reported upon this last great European famine, I have come to the conclusion just stated, without taking into consideration its political, religious, or national aspects, so far as this communication is concerned.

It appears to me that one of our great difficulties in Ireland has been the want of fusion—not only of races, but of opinions and sentiments, in what may be called a "give and take" system. As regards the intermixture, I think there cannot be a better one than the Saxon with the Celt. The Anglo-Normans, however, partially fused with the native Irish; for Strongbow married Eva, the daughter of King Dermot; and from this marriage it has been clearly shown that her Most Gracious Majesty the present Queen of Ireland and Great Britain is lineally descended. Several of the noble warriors who came over about that period have established great and wide-spread names in Ireland, among whom (not to be tedious) I may mention the Geraldines in Leinster, the DeBurgos in Connaught, and the Butlers in Munster, as is manifest from the name rolls of the country; and they and their descendants became, according to the old Latin adage, "more Irish than the Irish themselves."

Look what the intermixture of races has done for us in Ireland: the Fribolgs brought us agriculture; the Dannan, the chemistry and mechanics of metal work; the Milesians, beauty and governing power; the Danes, commerce and navigation; the Anglo-Normans, chivalry and organised government; and, in later times, the French emigrants taught us an improved art of weaving.

It would be more political than ethnological were I to enter upon the discussion of that subsequent period which would conduct us to the days of Cromwell or the Boyne, or, perhaps, to later periods, involving questions not pertinent to the present occasion.

Time passed, as it is passing now, and events accumulated; political affairs intermingle, but the anthropologist should try and keep clear of them. At the end of the reign of Elizabeth a considerable immigration of English took place into the South of Ireland. Subsequently the historic episode of the "Flight of the Earls," O'Neill and O'Donnell, brought matters to a climax; and the early part of the reign of the first James is memorable for the "Plantation of Ulster," when a number of Celtic-Scots with some Saxons returned to their brethren across the water; and about the same time the London companies occupied large portions of this fertile province, and the early Irish race were transplanted by the Protector to the West, as I have already stated. It must not be imagined that this was the first immigration. The Picts passed through Ireland, and, no doubt, left a remnant behind them. In consequence of contiguity the Scottish people must have settled upon our Northern coasts. When the adventurous Edward Bruce made that marvellous inroad into Ireland at the end of the fourteenth century, and advanced into the bowels of the land, he carried with him a Gaelic population cognate with our own people, and in all probability left a residue in Ulster, thus leaving the original Fribolgs, Tuatha de Dannan, and Milesians of Ulster, with the exception of

the County of Donegal, which still holds a large Celtic population speaking the old Irish tongue, and retaining the special characters of that people, as I have already described them. This Scotie race, as it now exists in Ulster, and of which we have specimens before us, I would sum up with three characteristics. That they were courageous and defending the walls of Derry; that they were independent and lovers of justice has been shown by their establishment of tenant-right; and that they were industrious and energetic is manifest by the manufactures of Belfast. Do not, I entreat, my brethren of Ulster, allow these manufactures to be jeopardised, either by masters or men, by any disagreements, which must lead to the decay of the fairest and wealthiest province, and one of the most beautiful cities in this our native land.

### TIDAL RIVER NAVIGATION.

At the late meeting of the British Association in Belfast, a paper was read by Mr. Thomas Neville, C.E. "On the Means adopted for the Improvement of the Navigable Channel of Dundalk." A plan of works was sketched which it was thought might be applied to the Bar at the mouth of the River Bann. It is stated that the harbour of Dundalk is entered by a channel four miles long from and in the bay, beginning at the bar, and terminating at Litcher's Point. This Channel, called the "Outer Channel," discharges the waters of the Castletown River at low water. In 1867 it had shifted so much that it became necessary to alter its course and fix it. A plan for this purpose was selected by the Harbour Commissioners and approved of by the Board of Trade. This consisted of directing the ebb and flow currents into a more direct course, and fixing this course by means of jetties and side walls constructed of loose rubble boulder stones, varying in weight from a few pounds to a few cwt., dropped in from punts, and raised about two feet over low water neap tides. The stones were not quarried, but picked from off the lands on the mountain side near the shore, carted to the shipping places by the farmers, and sent out in punts. About 60,000 tons have been deposited up to the present time; about two miles of jetties and walls have been constructed, and about £8,000 expended out of an estimate of £40,000. As the income of the Commissioners is limited, the works are carried on from time to time to meet the available funds. It was at first thought by many that at a distance of a mile or two from the shore these jetties and walls would be washed away. This has not been so. Not a single stone has been removed, but when subsidence takes place new materials are supplied, and the walls raised up from time to time as before. The jetties were used to force back the channel gradually, in some cases to an extent of about 700 feet, without any interruption of the navigation. He had brought this communication before the Association for the purpose of showing that guide walls, if not too high, can be constructed with small stones in a cheap and effective way to direct the currents, and maintain a channel at a considerable distance from the shore in their bays and estuaries.

Mr. Schoolbread, C.E., said that at Arklow, at the entrance to the River Avoca, a wall had been made running out to the channel, and the further the piers went out the more the accumulation of sand went out with it. At Bayonne an immense sum of money has been expended in continuing the walls out, with a similar unfortunate result. There were also other places on the Bay of Biscay, as for instance the mouth of the Bilbao River, where large sums of money had been expended in constructing walls of this kind, but no matter how far the walls were carried, the bar always re-appeared in front of them. With regard to the training walls, a very

successful application of them occurred. The River Garonne, leading up to Bordeaux, was very wide, and in some parts rather shifting, and it was absolutely requisite to get a good channel instead of a simple tidal expanse. The training walls were very successfully made up to a foot or two above low water. Spurs or groins were also thrown out, to assist principally in the deposition of mud, so as to aid in the reclamation of the slob land outside the channel. This reclamation was being extended gradually higher and higher up the river, even as far as Bordeaux itself, many acres of land being reclaimed every year. He considered that the most important and satisfactory statement which Mr. Neville had made was that in the course of his operations he had not been annoyed by the bar continuing to travel outwards with the walls.

### RE MECHANICS' INSTITUTES.

THE directors of the Dublin Mechanics' Institute appeal to the nobility, gentry, and professional gentlemen of Ireland for extended recognition and support. They also call the attention of the employers of Dublin to the claims of the Institute. They wish to enlarge their library, utilise their theatre, and in various other ways to make the Institute more attractive. We must say that the working classes themselves, for whom the Institute was established, have not done their duty, and in years gone by the directors themselves have been remiss in their duties. There have been years in the history of the Institute when its programme was attractive to the artisans of Dublin, but it is unfortunately not attractive now. The classes in English, French, mathematics, chemistry, and geology are not availed of as they should be; but we must not forget that we have art schools and other institutions to compete with mechanics' institutes, which were not availed of, except to a very limited extent, some years ago.

Mechanics' institutes in these days and in the future will have to compete with other institutions, and energy, intellect, and business capacity are needed in their boards of directors. Some of the pupils of the Dublin Mechanics' Institute have distinguished themselves, and we have no doubt that future honours are in store for others, if the Institute is made attractive. But an effort must be made within as well as without the building, and the artisan element must cater for their brothers, whose support they need to make the Institute in fact what it is in name.

Our sympathies are with the Institute, and we hope it may enjoy a long life. We would regret indeed to think its downfall was possible. Those who can spare a donation towards its funds would, we think, be doing well to bestow it; but the best support it can obtain is an increase of members, and each new member doing his best to induce others to join. On a future occasion we may make some suggestions, and point out what might be done and what ought to be avoided.

The Athy Mechanics' Institute shews a very bad financial state. At the half-yearly meeting it was resolved to issue a circular to defaulting members, calling on them to pay up their arrears. The circular says:—"It will be a great discredit to the town, and a public loss, if the Institute be allowed to go down, after having been maintained for twenty-five years; and down it must go, if the arrears be not paid at once." The Athy Institute has been used, like the Dublin one, by hundreds of members who were not of the mechanical branches, or mechanics at all; and we fear that a large number of the non-mechanical and non-professional have not been the best supporters. We do not, of course, wish to see any mechanics' institute made exclusive, but we would like, at the same time, to see the spirit of their formation maintained, and all of them made really attractive and useful for the classes whose name they bear.



### QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

THE last Quarterly Return issued supplies some important information worth digesting as to the birth and death rate of the country, and the health of the towns and people generally in the 791 registration districts into which the country is divided. There are several towns the local authorities of which have been for some time boasting as to their freedom from disease, and bespeaking merit for their good sanitary condition; but, according to the Registrar's notes, these towns cut a sorry figure. We have not space in this issue to furnish details, but we hope in our next to give an impartial view or review of a few matters that ought to be more widely known. Local journals and local authorities often see too little, or pretend to see nothing that is unpleasant; but it is as well that they should be made to see themselves as others see them.

### PICTURE MOUNTING.\*

A PICTURE badly mounted is oftentimes a source of annoyance to its possessor, and spoils what might be otherwise a good subject. A picture of little value, if neatly mounted, really looks superior to one of greater value where little care has been bestowed upon it.

Engravings, chromos, photographs, and oleographs, each require to be treated in a different manner, and we will describe what should be done to make them look well and preserve them in good condition for a great length of time.

*Engravings.*—If it is an ordinary engraving it will be best to prepare a stretcher, by mitring up, and stretch evenly thereon a piece of cotton cloth by means of tacks round the edge. The tacks should not be too wide apart or the cloth will not be so firm.

The engraving is laid on the bench face uppermost, and the edge of the stretcher laid across it from one edge of the picture, when, with a rule, the width of both margins can be ascertained. By halving this the exact width of margin can be seen, and by marking the picture in two places on each side a straight edge can be used and a line drawn where the picture must be cut. The margin on the top and bottom of the engraving can be easily decided, as the top must be measured off the same width as the sides, and the bottom can be marked by putting the edge of the stretcher on the top line and marking the picture by the other edge of the stretcher.

The engraving, when cut, is now just the size of the stretcher.

On a good smooth surface, sheets of clean paper should be laid, and the engraving turned over on its face. With a clean sponge and water go over the back of the picture till it has absorbed almost as much water as it will take, when, after lying in the water a short time a good coat of paste must be laid on very evenly, taking care that it contain no particles of grit. The stretcher must be evenly laid on and well rubbed down by the hand over the cloth at the back of the stretcher. The picture now on the stretcher can be turned up, and with a clean sheet of paper in the left hand laid on the outsides of the picture, rub well down on the stretcher.

Should there be any grit under the picture, which will be easily seen by the unevenness of the surface, it would be advisable to pull up the picture from one corner and remove it. If there is any dirt on the margin now is the time to remove it by applying the sponge with clean water, or it will not be removable when dry. Stains must be removed before mounting. The frame should be ready to receive the stretcher, and it should at once be tacked in and stood upright to dry. If not tacked into the frame the stretcher will twist with the drying of the picture, which tacking in the frame prevents.

Should the engraving be on India paper it

will not be advisable to damp it so much nor let it lie in the paste, but proceed as quickly as possible, as the India paper sometimes comes up when it is a difficult matter to lay it again properly.

Many other pictures are mounted in the same manner as before mentioned, but where it is an old engraving, stained and discolored, it will be necessary to clean it before mounting.

Where gilt slipping is laid in a frame of black walnut or other wood, the stretcher may be omitted by mounting the picture on the inside slipping in the following manner. The picture must be well damped with a sponge and clean water. The frame made of slipping must be well sandpapered down, and glued and laid on the picture in its proper place and well rubbed down. When dry it will be found to be well stretched, and the gilt will go under the glass. It should be tacked in the frame to dry, and, when fitted up, a backboard used. This method is not suitable for large pictures.

*Proofs.*—Sometimes valuable artist-proof pictures come into the hands of the picture-frame maker, with special directions as to their mounting, &c., as many gentlemen are most particular not to allow the fine lines of the engraving to be touched, and on no account pasted on the back.

When this is the case, the proof must be carefully measured up for the stretcher, as before mentioned, and marked on the back, but not cut. It must then be turned on its face on soft tissue paper, and moderately damped with a clean sponge and water. The stretcher, covered with paper, must now be laid on the back of the proof in the place where it is meant to be mounted, and the outside edges must be glued and turned over on to the back of the stretcher, and well rubbed down and tacked into the frame. It will dry, and present a well-stretched picture, and the paper will prevent the wood the stretcher is made of from staining a valuable picture, and keep the dust from the back. If it is important that the proof should not touch the glass, it will be necessary to have two rabbits to the frame—one for the glass and the other for the picture.

*Photographs.*—Photographs are usually mounted on cardboard, and the great fault is that the majority are on thin board, and through bad mounting the picture is pulled out of shape, and it is difficult to fit it upon the frame to present a workman-like appearance.

The photograph should first be squared up by cutting the edges with a sharp knife guided by a straight-edge, when it should be put into clean water for an hour or two, and laid between blotting-paper for a short time before mounting. Some thin starch should then be made and brushed over the back of the photograph very evenly, and laid on the board so as to give equal margin. After well rubbing down with a sheet of paper, it should be laid in a press or under a weight to dry. If it is required to mount a picture with cold starch it will be found to roll under the brush, and the fingers of the right hand will best rub on an even coat.

Where a cut-out mount is ordered, the photograph may be mounted on cardboard a little larger than the picture, placed behind the cut-out mount and pasted in its place.

*Water-colours and Chromos.*—Water-colours require careful treatment, as it is not advisable to make them wet by paste, or the colours may be affected. After careful squaring up, the edges should be gone over with thin glue, and laid in their place on the mounting-board. If a cut-out mount is required it must be placed in front of the mounted water-colour.

Chromo-lithographs do not require the care advisable for water-colours, as the colours on the picture are oil and will not readily be disturbed. They may be mounted with thick paste and laid under pressure, and if a cut-out mount is necessary, the mounted picture must be pasted in its place at the back of it.

*Oleographs.*—Oleographs are pictures printed in oil-colour to represent oil-paintings, and are mounted in the following manner. A

stretcher is made the size of the picture with wedges at the corners as in oil-paintings. It is then covered with a smooth stont canvas or unbleached Holland, when the picture receives a coat of thin glue, the stretcher is laid on the picture and well rubbed down and left to dry. The stretchers should be stouter than ordinary, as they require to be strong. After the picture is dry two coats of parchment size are laid on and then varnished with mastic.

These pictures are sometimes mounted as chromos, with margin, and many subjects look very well.

*Maps.*—Good cotton or fine canvas must be strained on a smooth clean board by tacks, and the map damped with a clean sponge on its back and then well pasted, taking care that the edges are well saturated. The map must then be laid on the canvas, a sheet of paper on the top, and well rubbed down: when dry, two coats of parchment size must be laid on, and one or two coats of paper varnish. When thoroughly dry, the tacks may be taken out and the maps squared up with a straight-edge and knife, enough canvas being left on the top and bottom to attach to rollers. The sides are then bound with silk ribbon and the bottom tacked on to a roller, while on the top a moulding is usually secured. Sometimes the roller is cut in half and the map secured between by screws at the back.

Where the map is in several sheets they must be carefully joined in mounting, and the edges well rubbed down, or the varnish may get under and stain the paper.

(To be continued.)

### SUGGESTIONS AS TO THE O'CONNELL MONUMENT.

BY THE VERY REV. T. C. POPE.

THE premature death of our eminent sculptor, Mr. Foley, and the yet unfinished condition of the O'Connell Monument, present very grave subjects for the consideration of the Monument Committee. If, as recent reports lead us to understand, the models of the figure of the "Liberator" and the principal supplementary figures, as well as the group encircling the base, have received the last touches from the modelling tool of the great sculptor, then we already possess substantially the creation of the artist's genius of design and the result of his artistic manipulation. Under these circumstances, though minor figures or other complementary details be not completed, I respectfully suggest that the monument be adopted by the country in precisely the condition in which it has been left by the great master. If, indeed, the monument were to be sculptured in marble—no matter how complete the models, or how precise the first cuttings under the guidance of the pointing machine, the last finishing touches from the chisel of a master-hand would be still indispensable to ensure the perfection of the work. These last critical touches, governed by no other rule than the precarious guidance of the eye alone, and yet struck with perfect ease, decision, and precision, are those which expressively stamp the character of genuine genius, and command the cold marble to breathe and start into life! When, however, as in the instance of our monument, the figures are to be cast in bronze, these finishing strokes are entirely dispensed with; for, as the mould is formed from the model, the casting therein must be an identical reproduction in metal of the original model. The only after-operation required is "filing up," which consists in removing the projecting seams caused by the oozing of the liquid metal into the joints of the mould, which it is always difficult to adapt with such exactitude as to leave no intervening interstices. The sculptor's aid is not even required for casting his own figures in bronze, as it is a process entirely distinct from and independent of his profession. So independent, indeed, of his profession and superintendence is it that many recent improvements in the adjust-

\* From the Cabinet Maker.



ments of the moulds, the core, the wax or bitumen, and in the mode of infusion of the molten bronze invented by eminent founders are kept strict secrets to themselves, and are concealed even from the sculptor himself who employs them. If the unfinished portions of the monument be merely sketched by Mr. Foley's modelling tool, they may even in that condition be invested with a peculiar interest and excellence. Sketches in painting and sculpture frequently display a freedom, boldness, and spirit which are often lost in more elaborate manipulation. I recommend that the castings in bronze from the clay models be taken as soon as possible. Clay models, long subjected to the damping process, lose much of their sharpness and expression; whereas, again, if they be allowed to dry, they shrink, and they shrink unequally in different parts, according to the different diameters of the varying masses of clay of which the limbs or rounder portions of the contour of the figures are formed, and thus the accuracy of the general proportions is injured, and the symmetry of the entire is deteriorated or distorted.

### THE KILLALOE SLATE QUARRIES.

At a meeting of the Killaloe Slate Company (Limited), the report of the board of directors for the half-year ending the 30th of June last was read. It stated that the affairs of the company were in a satisfactory state, the operations during the past half-year being £538 4s. 11d. The present aspect and future prospects of the quarries were satisfactory. In the items of expenditure, coals figured very largely, and the price of coals having greatly fallen, a prospective advantage was opened. The supply for the current half-year had been secured on favourable terms. The undivided profits now amount to £1,873 11s., out of which the directors recommended a dividend at the rate of 6 per cent. per annum, free of income tax. A sum of £1,715 4s. 9d. was due to the Hibernian Bank, which had afforded the Company most cordial aid, and as the directors believed it would be desirable rather to extend than contract operations, it would be for their advantage to increase the floating capital of the Company, so that what was now paid as interest should be divided amongst the shareholders as profits. Therefore they recommended that the 2,000 unallotted shares on hands should be issued *pro rata* amongst the proprietors registered as such on the 24th September inst.

### THE INSTITUTION OF CIVIL ENGINEERS, LONDON.

The following are the awards made by the Institution of Civil Engineers for papers read at the meetings during the session of 1873-4:—

A Telford medal, and a Telford premium, to Bindon Blood Stoney, M.A., M. Inst. C.E., for his paper "On the Construction of Harbour and Marine Works with Artificial Blocks of Large Size."

A Telford medal, and a Telford premium, to Richard Christopher Rapier, Assoc. Inst. C.E., for his paper "On the Fixed Signals of Railways."

A Telford medal, and a Telford premium, to Joseph Prestwich, F.R.S., Assoc. Inst. C.E., for his paper "On the Geological Conditions affecting the Construction of a Tunnel between England and France."

A Watt medal, and a Telford premium, to Alexander Carnegie Kirk, Assoc. Inst. C.E., for his paper "On the Mechanical Production of Cold."

A Watt medal, and a Telford premium, to George Wightwick Rendel, M. Inst. C.E., for his paper on "Gun Carriages and Mechanical Appliances for Working Heavy Ordnance."

The Manby premium to Leveson Francis Vernon-Harcourt, M.A., M. Inst. C.E., for his "Account of the Construction and Maintenance of the Harbour at Bray Bay, Alderney."

A Telford premium to Major James Browne, R.E., Assoc. Inst. C.E., for his paper "On the Tracing and Construction of Roads in Mountainous Tropical Districts."

A Telford premium to William Douglass, M. Inst. C.E., for his paper on "The Great Basset Lighthouse, Ceylon."

A Telford premium to Joseph McCarthy Meadows, for his paper on "Peat Fuel Machinery."

### HOME AND FOREIGN NOTES.

**BEREHAVEN MINING COMPANY.**—An adjourned meeting of the shareholders of the above company was held on 31st ult., at their offices, Westmureland-street—Sir John Ennis presiding—for the purpose of considering a new system of working the mines recommended in reports submitted at the last meeting. The chairman stated that the new system would lead to considerable economy. A substitution of water-power for steam-power in stamping ore would save from £800 to £900 a-year in wages, besides the cost of 1,000 tons of coal per year. He did not wish to be sanguine, but an increase in the price of copper might again put the undertaking before the wind. It would be necessary to provide £8,000 for an immediate payment. The directors would obtain a loan, if possible, and they would not make a call without consulting the proprietors. The reports and the accounts were unanimously adopted.

**THE QUADRATURE OF THE CIRCLE.**—Mr. Michael Callinan, of Tower Garden, Cork, announces that he has at last solved the mystery of the circle. He says he is prepared to prove the truth of his assertions before any enquiry that may be arranged at any place, either in Ireland, England, or Scotland. If Mr. Callinan's solution is entirely original and thoroughly demonstrative, without having to do with any given or polygonal rules of approximation, it is important and worth possessing, as it would work a revolution in science. For his own sake we hope it is so.

**SCULPTURE AND ARCHITECTURAL ART.**—With the revival of the Mediæval style of architecture, sculpture, of course, became one of its dependent accessories; the architect having at his command an ornamental carver, who would not only be employed in cutting ornament, but often human heads for label terminals, and grotesque animals probably used as gargoyles. And wherever it is thought necessary to introduce the whole figure, the architect has only to apply to his carver, who at once undertakes the task irrespective of his incapacity and want of knowledge of the human form. For a moment we will just glance at the results of such untutored hands attempting the higher branches of art. The carver procures a block of stone, and we soon see him pelting away at a supposed saint, or, perhaps, a virgin; modelling and pointing are out of the question, nor have they been even heard of among this class of men. We may at once conclude what the result would be from one who had but a vague knowledge of proportion and was altogether wanting in that of anatomy and the other requirements of the art. Stone which had been hewn into disproportionate and distorted forms was (and even is, now) set up in our churches to be gaped at, and even admired, by our art-devouring public, and often eulogised by some of our Gothic architects, as being an excellent example of Mediæval art. We have seen in churches which had been either entirely built or restored by some eminent architect of the day, figures whose heads have varied from a sixth to a tenth part of the whole length, and yet these are held in high esteem by experts in Gothic art. If such opinions are to be taken as valid, we do not hesitate to pronounce the said art as nothing else but barbarous; and we doubt whether much progress can be made until architects shall have acquired a higher knowledge of art in general.—*Builder.*

### TO CORRESPONDENTS.

**CALP.**—It is a carboniferous limestone and a middle formation between the lower and upper limestone. The upper and lower divisions produce a good crystalline greyish limestone, occasionally dolomitic, and in a few instances vultic. The calp consists of a dark carbonaceous or earthy grey limestone. The calp is not, in general, a good building stone, but there are quarries which yield a tolerably good and durable stone. It is liable to rapid decay, but its tendency to flake may be overcome by dressing it, and putting it in its proper building bed and not on a line with its laminae calp in the ordinary building stone of Dublin.

**KILMAINHAM.**—It is doubtful indeed if Sir Christopher Wren designed the Hospital. Some authorities have it that it was Inigo Jones, but that architect died many years before the building was thought of.

**A "CHALKIE'S" BOX.**—Will some of our readers or correspondents inform us if any of the old Dublin watchmen's

or "chalkie's" boxes are in existence, or has any citizen or public institute a complete set—box, rattle, and pole—in their possession?

**SEDAN CHAIR.**—"Antiquarian" wishes to know if sedan chairs are still used in Dublin, or if not, in what year they disappeared from the streets? The last places we observed them in were at the top of Rutland-square (Palace-row) and in Hume-street, but we forget the exact year. Possibly there are some octogenarian or nonagenarian ladies in the city who use them instead of bath chairs. Perhaps some correspondent will oblige "Antiquarian" with an answer, and also as to where he might get a well-preserved specimen of the old Dublin sedan chair.

**SANITAS.**—Next month, at Glasgow. There will also be an exhibition of sanitary appliances.

Several matters intended for insertion in this issue are held over for want of space.

**ERRATUM.**—In our issue of 1st inst., in noticing Mr. A. W. Robinson's design for new church at Strabane, we were in error in styling it a "Presbyterian" church—the word should have been "Episcopal."

### SANITARY AND OTHER NOTES.

The Water-Works of Dublin are likely to afford material for discussion for years to come in regard to law expenses, and in respect to supply, pollution, and waste. A judgment is still in existence at the suit of the Collector-General for a large sum for rates on the water-mains, but the Water Works Committee, we are told, have no funds, while some of the members of the Corporation and a large number of the public are anxious to know how the funds of the committee have been expended. We will perhaps hear the facts some day. A report was read at the monthly meeting of the Corporation in reference to the complaint of a citizen of injury done to his business by tramways opposite to his house, but, as usual, the committee fenced the question and quoted the law, without affording any answer to the complaint, or suggesting how the evil complained of could be abated. The Town Clerk read a report from No. 3 Committee (of which Dr. Norwood is chairman), which referred, among other things, to a payment of £62 10s., in respect of the expense of five officers of the Corporation, who attended with a deputation from the house on her Majesty the Queen and the Duke of Edinburgh, in London, in March last. The sum of £12 10s. a-piece for a journey to London, stopping a few hours and returning, is an easy way of spending the citizens' money. Two officers, or three at the most, would have been quite sufficient; but during the last ten years several hundreds have been expended in foolish or useless deputations, while the city was left uncleansed, a prey to epidemic. A report was adopted at the meeting recommending the erection of a weigh-house at Burgh-quay.

**KINGSTOWN.**—At the monthly general meeting of the Commissioners, it appeared that the Kingstown Extension Boundaries Bill had received the Royal assent. Plans had been forwarded of the proposed new town-hall to the Board of Works. Notice to increase the clerk's salary had been postponed *sine die*. Some discrepancy in the weight of hay supplied to the board was under examination for some time, and was referred to committee. The surveyor's report was read. It stated that the asphaltting of the footways of the chief thoroughfare would shortly be commenced by the Val de Travers Company. The average amount of water supplied to the township during the last month had been 4,010 gallons daily. Mr. Kelly had resigned and had resumed his seat at the board during the last month. An account rendered by Sir J. Hawkshaw for £350 for plans recently supplied with respect to the township sewerage, was brought forward. It was referred for further examination. The mortality in Kingstown during August was stated to have been 14 per 1,000 of the inhabitants. Mr. Beale's plans for an aquarium and town-hall for Kingstown were brought forward. The buildings were proposed to be erected on a site expected to be obtained near the railway terminus from Government. The plans were very comprehensive, including a number of shops and other useful features, beside a town-hall and court-house. Communications were read from the Board of Works on the subject of the site. A proposal was discussed for combining with the Aquarium Company in the matter of the new town-hall, the board to pay a rental to the Company for the accommodation required for the township. A warm discussion ensued, some members of the board advocating the proposed combination as a saving to the rates of the town, and others proposing the independent borrowing of Government money to erect a town-hall and court-house for themselves. Several trading members objected to shops being included in the aquarium scheme, while others pointed out that the Kingstown traders could possess themselves of these shops if they so desired. One commissioner understood that no calling likely to interfere with any trader in the town would be carried out in the



shops in question. The advantage of the aquarium to Kingstown was generally admitted. Mr. Stewart, seeing the friendly nature of the communications of the Board of Works, moved a resolution that an interview should be had with the projectors of the aquarium. The plans sent in for a new town-hall were not examined. Sanction was given for the payment to the Dublin Corporation of an excessive water account. It was reported that meters were now being added to the township's lamps. About twenty ratepayers attended the meeting. A committee of the Kingstown Board of Commissioners since met in their rooms, and conferred with Mr. Beale, the chief promoter of the proposed aquarium, town-hall, and court-house for this township. It appeared that the buildings and fittings would cost about £26,000. It was proposed that the commissioners should pay in the form of interest or rent for certain portions of the buildings to be set apart for their use till they raised funds to buy them out. They proposed Mr. McCurdy as their architect, should an arrangement of the nature stated be carried out. Finally, the committee resolved to consider the matter fully, and to draw up a report on the subject, to be laid before the full board, with the understanding that neither party was committed to any line of action by the conference.

**BLACKROCK.**—The work of reclaiming a large tract of slob land within the line of railway at Blackrock proceeds. It has been estimated (says a correspondent) that £10,000 must be expended before the sea is kept out, and that in purchase-money and labour nearly half that amount has already been expended. No contracts for the work were, it appears, taken up, the local commissioners deciding on carrying out the reclamation themselves by day labour, under the inspection of their own engineer. A large proportion of the filling-in material is sand drawn in under the railway culverts at low water, and occasions have arisen when much of this sand has been washed away again. This must render the work of reclamation tedious and costly. The town sewage, in great part, still spreads over the slob, and its odour is as offensive as ever. At the fortnightly meeting of the commissioners on Wednesday last a discussion took place in reference to the contract for asphaltting the footways. It was stated that the committee, who had entered into the contract, had acted illegally without giving ten days' notice before entering into the arrangement. It was finally arranged that the asphaltting works, at present in progress, be discontinued until the expiration of the required time. A communication was received from Mr. Ferguson, in which he stated that the appointment of the Public Parks Committee was an invalid exercise of the powers conferred upon the Commissioners by the Public Park Act (Ireland) of 1869, and he considered that the constitution of the committee was informal, inasmuch as Mr. J. E. Vernon did not possess the statutory qualifications to act, and that the Commissioners had no right to transfer those powers vested in them. Mr. Ormsby gave notice that he would move on the next day of meeting that the salary of Mr. Barnes, Surveyor, be increased from £155 to £230 per annum, in consideration of the great services he had rendered to the township since his connection with it as engineer, and the great expenses he had spared the ratepayers during the introduction of the Varty water supply, main drainage, public lighting, and other extensive works, and that the increase of salary be computed from the 31st August, 1873. The arrangements for the loan of £4,000 were completed, £3,000 of which sum is to be applied for drainage purposes, and £1,000 for asphaltting the public footways. The report of Mr. Barnes was submitted to the board in reference to the footpaths of the township most in need of asphaltting, which would convenience the inhabitants. The cost he estimated at about £1,200, and the superficial extent covered at about 8,080 square yards.

**BRAY.**—At the monthly meeting of the commissioners it was resolved to inform the tax collector that he would be made liable for interest at bank rate on uncollected rates. A letter from the Wicklow Railway Company stated that they were willing to pay for any water used for their locomotive engines when the Dublin Corporation had put up the necessary meter. A letter was read from the Dublin Corporation stating that after September 1st no excess of Varty water would be allowed the township without additional payment, the statutory allowance being twenty gallons per head per day. The surveyor stated that under these circumstances a separate meter should be erected to measure the water supplied to the township. It was resolved that the census of the population of Bray should be specially taken without delay in its bearing on the amount of water required by the inhabitants. Several letters were read reporting the existence of nuisances. Six copies of the new

Public Health Act were received from the Local Government Board, with a letter calling attention to its leading features.

**DROGHEDA.**—In his report, dated 29th ult., on the potable waters of Drogheda, Dr. Cameron states that:—"I have carefully analysed ten specimens of water submitted to me for that purpose by the Corporation of Drogheda, and the results of my examination are given in the table herewith. 1.—Though somewhat 'hard,' is, on the whole, a pretty good water. 2.—This water is free from sewage (its nitrogen compounds—ammonia, nitrous acid, &c., being small in amounts), but it is unfit for use, owing to the enormous amount of solid matters—nearly one quarter ounce per gallon—which it contains. Such a water, if constantly used, is calculated to produce disease of the digestive organs. Its large amount of sulphate of lime (plaster of Paris) is one of its most objectionable features. 3.—This water is of excellent quality, containing only a moderate amount of solid matters, and being free from sewage. 5.—I consider this water tainted with sewage, though not to a large extent. With respect to its amount of dissolved solid matters, it is unobjectionable. 7.—This is a frightfully impure water, utterly unfit for use. Beside containing an enormous amount of solid matters (including objectionable earthy salts), it is highly contaminated with sewage. 8.—The only objection to this water is its hardness, which renders it to some extent inefficient for abstergent and cooking purposes. It is free from sewage impurities. 10.—The softest and best of the ten specimens of water, except No. 3. 11.—Free from a sensible amount of sewage impurities, and moderately hard. 12.—Somewhat hard, but otherwise a pretty good water. Magdalene-street Fountain.—This water is somewhat contaminated with sewage impurities, and it contains an excessive amount of dissolved solid matters. It is not fit for drinking, cooking, or washing. I had expected to find all the fountain waters identical in composition, believing them to be from a common source, but I found them, with two exceptions, 3 and 10, to differ in several respects."

**DUNDALK.**—In the matter of street "obstruction" in this town, the local *Democrat* of Saturday has the following:—"The police, it would seem, are determined to remove all 'obstruction.' At the last sitting of the Borough Court, Mr. Parks, Barrack-street, was fined, at the suit of this protecting body, for having cars outside his premises, which caused obstruction to the thoroughfare. Elated by the success of their last case, a raid was made upon the cabbage-stands on the market-square, and the owners of the several stands summoned for obstructing the thoroughfare. The delinquents were fined 5s., or in default of payment, a week in gaol. The fines were made up by such vendors of the favourite vegetable as were fortunate enough to escape the 'vigilance' of the constabulary, and the 'offenders' were released." [We have frequently drawn attention to the neglect of our white-gloved protectors in looking after our thoroughfares. They are invested with sufficient authority to prevent encroachments, but they are either careless or timid in carrying out the law.—ED. I.B.]

**ABBEYLEIX.**—A case of adulterated milk led to a long hearing at the Petty Sessions of this town—"The Board of Guardians v. Richard Seale," the defendant being the milk contractor to the Union. Dr. Cameron analysed the milk, which was proved to be adulterated, and not of the quality contracted for. The case was before the magistrates on two occasions previously. In the end the Bench adhered to their original order, and inflicted a penalty of £10, and £10 costs.

**LURGAN.**—At the monthly meeting of the commissioners it was stated that since the previous meeting Professor Thompson and Mr. Young, C.E., Belfast, had been in Lurgan with respect to the water question. They had not yet made their report on the matter, but he might inform the commissioners that these gentlemen recommended the water to be taken from Moss Bay in the Lough, and not from Kinney's Bay. It was agreed to postpone the further consideration of the matter until after the report of Messrs. Thompson and Young should come to hand.

**COLERAINE.**—A correspondent with American experience, writes in the *Coleraine Chronicle*, on the water supply of that town, and points out how an efficient water supply can be obtained for Coleraine. Among other things he says:—"Does it never occur to you that your natty little town may some day contain a population of 100,000 inhabitants, and annex to itself Portstewart, Portrush, Bushmills, Dervock and Ballymoney? Do you not think that that day might be hastened by providing in advance a supply of water for its factories, steam-engines and baths, for the irrigation of its

fields and gardens, and for culinary purposes? You have bills in the Parish of Killybegs, where reservoirs can be built overtopping the whole plateau from Coleraine to Ballycastle, perhaps to Ballymena, except the Kilgrane ridge. On these hills you can store up hundreds of millions of gallons—an unfailing supply for that whole district. You have the Bann at your feet, and the Bush in the distance, as the sources of that supply; the hydraulic power in the Cutts to raise it to any requisite elevation, and civil engineers somewhere to plan and execute the necessary works at comparatively moderate expense. There is no physical difficulty whatever in carrying out these suggestions; and the principal one, the financial, could surely be overcome by the public spirit of your landowners, merchants, and others, and by prospective water rents. The sanitary one, the purity of the water above the Cutts, is not insuperable, as legislation could compel, by proper police supervision, a complete utilization of the sewage of the upper towns and hamlets for agricultural purposes; while a sufficient reserve could be held in reservoir during the passage of the flax steepings from the river, or until chemistry abolished that nuisance. The riparian damage, by a diversion of a portion of the stream from its natural channel, could be met mechanically."

**PORTRUSH.**—It having been stated in the *Belfast News-Letter*, we believe, by a correspondent, that in respect to Portrush, "in every part of the place (houses included) you encounter every species of abominable smell, and as for the water, the little that is procurable is quite unfit for use." A correspondent in the *Coleraine Chronicle* flatly denies the impeachment, though he admits that there are spots with defective sanitary arrangements in the town. The town is a seaside one, and much used in the bathing season, and the correspondent is inclined to lay the whole blame upon the migratory lodgers, and not upon the landlords. Time will tell, if it has not already, who are the parties mostly to blame.

## NOTICE.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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## ILLUSTRATION:

DESIGN FOR EPISCOPAL CHURCH, STRABANE.



# The Irish Builder.

VOL. XVI.—No. 355.

*The Architecture of the Cistercians.*

VALUABLE contribution to the study and illustration of the architecture of the Cistercian Order has been made by Mr. James J. Phillips, Belfast. It is a monograph, comprising a series of measured and sketch drawings, details, &c., with descriptive and historical letter-

press, of Grey Abbey, County Down, the once magnificent Cistercian monastery founded in 1193. Attention has of late years been directed to the architecture of the Cistercian Order by more than one British architect and architectural writer, but among the most recent and able illustrators of this class of buildings is Mr. Edmund Sharpe. Roman Catholic opinion may not agree with some of the views expressed by Mr. Sharpe, or admit his deductions where religion is

made to flash a side light, and account for evolutions that may or may not be owing to its influence. One thing, however, is certain, that the Cistercian architects appear to have worked in a peculiar and special groove, and the outcome of their labours lives to influence architectural thought and design upwards of seven centuries after the foundation of the Order, and when all, or nearly all, the magnificent structures that belonged to it are crumbling into ruins. We have no desire to follow the strictly religious aspect of Cistercian influences, or to encourage a free fight among the architects of our day on the head of this or that narrow view of the style; but we are concerned to see all scholarly architects and archæologists, no matter of what school, taking up the subject of Cistercian architecture without prejudice, and honestly doing their best to illustrate all that remains to us of those grand old buildings which have found in this country at least, in the instance under notice, no unworthy illustrator.

The remains of St. Mary's, Grey Abbey, exhibit nearly all the peculiarities common to the monasteries of the Cistercians, both in its site and plan. The nave, however, presents an unusual feature in being *aisleless*. In his report on the ancient Church of St. Nicholas, Carrickfergus, Mr. Drew, the diocesan architect, puts forward a very plausible explanation regarding the above peculiarity. In his opinion, that part of the church was an antecedent Irish work built "*more Scotorum*." "The majority of the ancient churches in the united dioceses of Down, Connor, and Dromore," says Mr. Drew,

"present a unique and distinctive type; long, narrow, rectangular buildings, of such striking similarity in plan, proportion, severe simplicity, and such architectural details as remain, that they must be recognised as the work of a unique and distinctive school of church builders. This extraordinary conservatism of plan conveys to the mind the conviction that these builders were 'Scots'—Irish churchmen untampered by English interference, resisting innovation in matters ecclesiastical, and especially in the fashion of church building. A notable example of this is afforded in the narrative of the tumult created when Malachy, the Bishop of Down, attempted to build at Bangor a church *instar illorum quæ in aliis regionibus (extracta) conspexerat*."

From an examination of the drawings, there can be no doubt that insertions of later work took place in the matter of tracery,—indeed over the entire buildings alterations seem to have occurred at different dates. The eastern end of the church, which is square, presents a double tier of triplet windows of Early Pointed form, with a smaller window at top. The north and south windows lighting the eastern wing of the church were originally of a like form, but were subsequently altered, and had decorated stone tracery introduced on outside. The eastern end exhibits features in its plan common to the English ones of the Order. In the west doorway there is to be found a good specimen of Early English work. Although an attentive study of the drawings furnished by Mr. Phillips of the church and conventual buildings will reveal the fact that there has been some remarkable deviations at Grey Abbey, yet on the whole the buildings preserve the great leading and distinguishing features of the Cistercian church and abbey style.

It would be unjust to the author of this monograph to quote at length from his valued contribution at present. It is a work that deserves study and patronage, and we hope it will meet with both at the hands of the profession for whose interest it was undertaken. We best can serve the interests concerned at the present by stating that the historical letterpress consists of a useful introduction, followed by a description of the foundation and early records of Grey Abbey; the introduction of the Cistercian Order into Ireland, and general remarks as to that Order of monks, accompanied by a sketch. Next follow the descriptive letterpress, with ground plan; appendix to same. The church, west elevation, east elevation, north elevation, south elevation, section through transepts, longitudinal section, details, the refectory; elevations—doorway in north wall of nave, doorway in west wall of south transept, monumental fragments, free sketches of details; perspective—interior of the church from south chapel, ditto nave, bird's-eye view from north-east. An appendix is added, giving the subsequent history of the Abbey after its first ruin and spoliation.

A *facsimile*, among the other drawings, is given of the principal "masons' marks" found on the stone in several parts of the building. Respecting these we are irresistibly tempted to quote an extract, as the subject possesses great interest for us:—"The mediæval masons' marks noticeable on the fragments and ruins of Grey Abbey naturally claim attention. The series presented above is believed to include all that are generally mediæval; two of each sort are given, rubbings having

been taken off the originals and reduced by scale. Many of these marks correspond with masons' marks of various dates found in different parts of the world, as a comparison with the extensive series collected by Mr. Godwin would show. [See *Builder*, March 27, 1869.] Individual marks found at Grey Abbey are also inscribed in the crypt of Glasgow Cathedral, in Canterbury Cathedral, and on other buildings, civil and ecclesiastical, in Great Britain and Ireland, France, Germany, Spain, Portugal, Switzerland, and the Holy Land. It might be thought that Erin would, at least, have a right to the exclusive use of the shamrock pattern, but almost a similar mark is to be seen in Strasbourg Cathedral."

Mr. Phillips is of opinion that many of these marks were undoubtedly used for the classification of the stones while unset or in pile, and probably were also used to tell the amount of each man's work. There has certainly been found a great diversity of marks on old buildings—some may have a symbolical meaning, others may not, for they are to be found in all positions—sideways, upright, and upside down.

Again, Mr. Phillips observes:—"The very practical and common-sense workmen who wrought the stones for this Abbey left other marks than these incisions, and on such fragments on the sections of the clustered columns are to be found the lines by which several hundred years ago the stone-cutters squared and set out their work." It is abundantly clear that a sound knowledge of geometry was known by the early mason fraternity, both lay and clerical. Whether the general class of workers were well acquainted with "lines," as our modern workmen call it, is impossible to know now; but there cannot be the least doubt that the leading hands and master workmen were well up in the elements of Euclid, and understood the "setting out" of the most complex development of forms in constructive masonry.

In the work under notice a sketch to full size is given of an encaustic tile found at Grey Abbey. The surface is quite smooth and flat, the body of the tile is of red pottery, the pattern being produced by a yellow or buff-coloured inlay on the red ground, and the surface coated with a vitreous glazing. The inlay is the softer material, and is slightly mottled from wear and age. The statutes of the Cistercians, it seems, enjoined great simplicity in design in the workmen of that body.

We think Mr. Phillips did right in giving the plans of the most remarkable abbeys of the Cistercian Order in England and on the Continent, for a comparison with Grey Abbey, "shewing its general coincidence to the Cistercian ideal developed in various plans of abbeys by that Order."

Before concluding our notice, there is one matter in connection with the conventual buildings of Grey Abbey, which we cannot pass by without noticing. The admirable Cistercian community were good sanitarians for their day, and provided well for the health of their Order. Both water-supply and the getting rid of sewage was duly considered in all their erections. Speaking of the flushing sewer and its passage, Mr. Phillips remarks:—"This sewer emerges from a well-constructed arch tunnel, which must have been formed with great labour. It extends underneath the adjoining hill in



a north-easterly direction, and doubtless communicated with some well-supplied reservoir, the water from which would serve to carry off to the then adjacent lough the sewage and refuse of the kitchen and entire convent. The Cistercians utilised their water-supplies in a very practical manner; they constructed on them mills, fish ponds, &c., and recognised the value of sanitary principles to a degree worthy of modern imitation."

Mr. Phillips inscribes his monograph of Grey Abbey to the Belfast Architectural Association, with sincere wishes for its success; and he acknowledges the friendly encouragement given to him in the prosecution of his work. The author also acknowledges valuable assistance rendered to him by several well-known archæologists in this country and in England. The work in its entirety, both letterpress and lithographic illustrations, is by the one hand, and evidences considerable care in its preparation. Whatever may be found wanting to make it complete cannot be charged to the carelessness of the author, for the work has evidently been a labour of love to Mr. Phillips, though at the same time entailing a large amount of arduous labour upon the author.

#### ESSEX BRIDGE.

THIS day it is intended to open for traffic the new Essex Bridge, built under the auspices of the Port and Docks Board. The arches are five in number, as before; the three central are elliptical, in order to reduce the height of roadway, which has been lowered about 9 ft. The outside arches are semi-circular, and reduced in span by building out the abutments farther into the river, in which are provided culverts for the Main Drainage system, whenever it shall be carried into operation. As a roadway or great artery of traffic, the new structure is everything that can be desired, and its nearly uniform level commends it to all who are interested in commercial pursuits. It has been designed by Mr. Stoney, and built by Mr. Doherty, of Belfast.

Essex Bridge—erected by Semple, 1753-55; modelled after Westminster Bridge—is of the past, and certainly had some pretensions to architectural taste. True it is the arches, according to the fashion of our progenitors, were pitched too high; but in these days a belief in the necessity of the semicircular form was, perhaps, an article of faith, so far as bridge building was concerned. Semple was not sufficiently courageous to adopt the ellipsis, and it remained for Telford to initiate its use in arches of considerable span. Although however much the semicircular arch may tend to improve a picture, it is now found most generally inapplicable to modern bridge building. Had Semple planned his arches either segmental or elliptical, it is more than probable his work would have remained for generations yet unborn.

The balustrading and niches originally designed, and as shewn in one of Malton's Views of Dublin, were not particularly attractive. However, in latter years the niches were removed, and the balustrading lowered to a reasonable height; and Essex Bridge, as it stood two years ago, was no discredit to a city whose architectural pretensions contrast favourably with any of equal size in Europe.

Perhaps we are insensibly gliding upon days when art ideas must be sacrificed to utilitarian views. A good, substantial, and solidly-built structure now stands in place of Semple's work, and one of the most desirable possible improvements has been introduced in providing the central space for the conveyance of gas and water mains. The footways are formed projecting on the cantaliver principle, and are so much added to the

former width of the bridge, and would be much to be admired if designed with even an approach to art construction. Unfortunately this has not been attended to, and they altogether destroy what might have been at the same cost a highly creditable work.

Oh, if it be that spirits may  
Revisit earthly scenes to-day,  
Shade of Semple, look down and see  
Where once thine art is now deformity.  
The triumph thine, the bridge thy talent graced,  
Is gone for aye, and tastelessly replaced!  
New arches sprung, and shapeless corbels bear  
Iron trellis—all the art that's there;  
Girders in place of balustrading.  
Oh, Dublin, how thou'rt retrograding!  
Thy palmiest days are passing o'er,  
When commerce patronizes art no more!

These footways—which are apparently an afterthought—are being supported upon the most primitive-looking and certainly the clumsiest attempts at corbelling ever beheld, and which appear to have been designed after the model of the working carpenter's antiquated ogee bracket. What is intended to form the balustrading, and also support the intervening spaces of footway between the corbelling, are wrought-iron lattice girders, from which no after-decoration can by possibility remove their unsightly appearance. Now, corbels in the position these stand are capable of highly artistic treatment, and could be made ornamental features instead of positive deformity. The weight the lattice girders are intended to sustain would be equally well borne by tubular plinths, say from 18 in. to 24 in. in height, and upon which any description of ornamental balustrading might be erected. Surely there is enough of talent in Dublin capable of designing something to supersede this monstrosity.

The present is the third bridge erected on this site. The first was commenced in the year 1676; up to and until its completion the entire traffic over the river was carried on by means of one bridge opposite Bridge-street, which united the Danish village of Ostmanton (now called Oxmantown) with the city. In 1675 there still existed on the south side, where one of the abutments of Essex Bridge now stands, a gateway and tower in connection with the city walls: this was Newman's or Isod's Tower, as shewn on Speed's Map of 1610. In the year above named (*i.e.*, 1675) this tower was taken down, and in the following year replaced farther from the river by a gate and tower called Essex Gate, designated thus in honour of Arthur Earl of Essex, then viceroy; and from this nobleman the present bridge derives its name.

The increase in traffic of Dublin had long required a connection across its river more easterly, and in 1676 Mr. (afterwards Sir Humphrey) Jervis commenced the building of the first bridge on this site, which consisted of seven arches, and erected it, by the assistance of Mr. George Mack, a mason, with the stones removed from the dissolved Abbey of St. Mary. Both parties engaged in its construction appear to have suffered considerably in a pecuniary point of view from the undertaking, and the bridge itself was still more unfortunate, because no precautions were taken to secure proper foundations. In eleven years after (December, 1687) an unusually high tide carried away a portion of one of its piers.

This bridge, originally but 20 ft. 5 in. in width, soon became too narrow for increased traffic, and an addition was built to it on the western side of 9 ft. 6 in. in width, to provide a footway, which was divided from the original bridge by a parapet or low wall; but it appears to have been a failure from the commencement, as its foundations were merely laid upon the bed of the river, and resting partially upon the offsets of the piers of the then bridge. This annex soon separated, and at the period of its removal (1753) shewed a chasm fully 8 in. across its entire length. In 1751, fully one-half of two of the piers of the original bridge gave way, causing the collapsing and consequent fall of two of its arches. These were trussed over with timber, and the roadway was thus temporarily restored

by planking. However, two others of the piers commenced to subside, and diagonal openings shewing themselves in others of the arches, the entire structure was condemned as insecure.

In 1753 the Corporation resolved to build a new bridge, and the work of its construction was actually forced upon George Semple, who, however, proved himself quite equal to the task. In No. 266, vol. xii., of the IRISH BUILDER we have given some account of his, the second, Essex Bridge, which, from its construction, was capable of enduring for indefinite time; and our only regret is, that it is not replaced by a structure at least as ornamental as that which he produced. No doubt the third bridge is well and solidly built, but there is something more which a city like Dublin demands, and that is for its rising generations it shall not appear to be retrograding in its architectural features.

W. H.

#### THE KINGSTOWN TOWN HALL BUILDINGS, &c.

IN some notes in our last issue, Mr. M'Curdy's name as architect was mentioned in connection with the intended buildings. We must stand corrected, as we have learned since that the plans of Mr. J. L. Robinson have been accepted by the Commissioners, as also the plans of the same architect for the new hospital, the foundation-stone of which will be laid on this day.

#### THE CLANCARTY STATUE.

ON Tuesday the ceremony of unveiling this statue (which is by a Belgian sculptor!) took place at Ballinasloe. The deceased earl is represented attired in his ordinary dress, in an attitude of contemplation, with his hands folded, and facing towards Garbally Park. The figure is of bronze, 7 ft. 4 in. in height, and stands on a pedestal of Ballinasloe limestone, 10 ft. high, bearing an inscription on a black panel in gilt letters. The worthy chairman of the Town Commissioners, in the course of some observations, informed the assemblage that "After inquiry, Mr. Rae-mackers, an artist of well-known eminence and ability [?] was selected to execute the work. . . . The artist had never seen the late earl, and had only a few photographs to guide him." Alas! had we no resident Irish artists to whom the features of the noble-hearted deceased were familiar? We write in sorrow always when we meditate on the cold neglect bestowed upon our countrymen. Another Foley may be in our midst. Perhaps the untouched figure of O'Connell for the monument in Sackville-street, could with safety, at the "eleventh year," be entrusted to Mr. Thomas Farrell, the artist to whom was entrusted the memorials of Smith O'Brien, Captain Boyd, and others.

#### "TURN THEM OUT."

A MEETING of the ratepayers of Bray Township was held on Tuesday. It was resolved to support fresh candidates at the forthcoming municipal elections, and thereby make an effort to "infuse new blood" into the Board of Commissioners, who, it was alleged, had become indifferent to the duties expected from them by their supporters at the previous election. A subscription list was opened to defray the necessary expenses.

We are constantly asked if the "Dublin Ratepayers' Protection Association" has entirely collapsed. Now that the time for electing representatives in the Municipal Council is approaching, it is imperative on those who suffer from heavy taxation to make a bold effort to put proper and honest men into the Council. We shall willingly assist our fellow-citizens in getting up a public meeting, and, if possible, resuscitate the association, which has already effected much good work. It is lamentable that such apathy exists whilst such extraordinary balance sheets are presented to the ratepayers year after year.



THE ARCHITECT'S  
SATURDAY NIGHT.

HERE, by my fireside, the *Builder*, the *Building News*, and the *Architect* for the week are undergoing review—a silent one. How I should like to hear what So-and-so and So-and-so would say when they saw this illustration or read that article I have just seen. There are scores of men of riper judgment, sounder discretion, more brilliant wit than I, engaged at this moment in precisely similar occupation; what would I not give to hear some of the fugitive criticisms that are a-going just now? How I should like some one in the flesh to adopt the arguments of the article I have just read, that I might 'go for him' and of course demolish him; and the thought occurs to me, why should we not have a running fire of criticism of the contemporary publications in the *IRISH BUILDER*? It would be wholesome, salutary, and enlivening. Most of the architects whose works are published in these journals are personally strangers to the *IRISH BUILDER* readers and contributors, and there could be no interested or malicious personality in discussing the merits of their works as they come before us. Many excellent articles do not receive the attention they deserve in the absence of their merits being fully canvassed, and a vast number of works are illustrated which would be nothing the worse for a little intelligent criticism. Let the *IRISH BUILDER* open its pages to such criticism, and by all means invite comments from its contributors on what they weekly find in the building journals.

It might perhaps not be unserviceable to any journal to see at times some reflection of the impress they make. They would not be, for instance, unkind friends who would plainly tell that most respected and respectable of journals, the *London Builder*, that it is subject of wide comment among its oldest supporters; that while its literary excellence is still as high as ever, its illustration department has fallen into feeble form than in past days,—doubly so by contrast with its energetic and younger rivals. How, people ask, does the good old *Builder* manage to monopolise all the ugliest and least meritorious of buildings? To pass a late volume of the *Builder* under review is, after dwelling with pleasure on some half-dozen fine and interesting illustrations, to rise with a feeling of depression that there should be so much stupid or objectionable building going on; that wood-cutting—excellent in itself—should be so monotonous in style, and that time after time the same draughtsmen should appear to perpetrate the same errors of drawing and perspective in the accessories of the buildings illustrated. These remarks apply but generally. The *Builder* this week (September 19th) has a fine illustration of the Choir of Tournay Cathedral, from a drawing by Brewer, an artistic and excellent woodcut; and it may here be said that subjects of this kind, are invariably well produced by the *Builder* artists. On another page the *Builder* gives us this week "Architectural Scraps," which it says—"probably as a safe thing to say—are 'not without suggestiveness.'" The only suggestion they have for the writer of these lines is a sense of wonder how any one could be found to record in a sketch book such feeble and unprofitable very 'scraps' indeed; and further, that good wood engraving should be wasted on them. A rectangular window space filled with ugly Elizabethan tracery of the twisted eel type, and two commonplace iron scroll brackets, with little tendency in form to a bracket's object and purpose, are neither profitable nor objects for imitation. The *Builder*, however, in its letter-press does not—as the other papers do—bear any signs of the 'stupid season' or the absence of contributors on autumn holidays. A sketch of an architect, little known to most men, Sir Balthazar Gerbier, is full of suggestive interest, and makes one wish to hunt up more traces of this notable and versatile worthy. Mr. Phillips' "Grey

Abbey," County Down, is noticed, and the criticism is kindly and appreciatively done.

The *Architect* for the week is perhaps most to be commended for an article (No. II. of a series) on the Building Limestones of France. It is full of sensible and thoughtful information on the process of disintegration of building stones, applicable generally, and it is worth re-publication\* in the *IRISH BUILDER* for those who may not have the good fortune to see the *Architect*. Turning to the illustrations, what have we? Moreton Almshouses, Streatham, Kent—T. E. C. Streetfield. Pleasant and quaint these look, no doubt, one thinks in execution in their native landscape. Fully imbued they are with the spirit and feeling of old English rural hap-hazard building, even if they are studiously so. These have no boldness of grouping nor striving after 'features,' but are in fact commonplace and natural domestic work. It is pleasant to notice the decided tendency to revert to old English manners of building, and to observe architects studying how they can place in the English landscape buildings which seem somehow as if they were an indigenous product of the soil. Next we have a Sanatorium, All Saints' School, Bloxham—W. B. Milne,—a decent, quiet and be-mullioned and transomed Gothic building, somewhat E. W. Godwinsque in character, unpretentious and satisfactory, no doubt, in execution, but weak in chimneys which are angular and bald. The *pièce de résistance* of this week's *Architect*, however, is a design for municipal buildings, Leicester, by J. Goddard and R. Phéné Spiers—a double-page illustration. Something very stunning in a fine artistic etching, as one opens the pages, but on examination proving to be a most pretentiously set out, shallow, and monotonous compound. The style adopted is 'Perpendicular' of a wiry and cardboard-model aspect. The whole thing has a paper design and unreal look about it—a long flat façade rather symmetrically balanced by corresponding blocks or pavilions on each side of a central tower, and an entrance (of which a few words presently). The building on scrutiny is one of three storeys from the street upwards, but treated with an unhappy trick (prevalent in modern French works), by which the windows of the two upper storeys are run into each other without dividing string course, and holding out a kind of transparent delusion that these two storeys may be one series of grand lofty halls. These storeys finish with a peculiarly weak cornice and monotonous embrasured parapet. From the corner of the block nearest the spectator a squat octagon turret escapes from the slates of the roof, as if it ran a risk of being smothered. The mild roofs run off into still milder arearailings at their crest, and some chimney-stacks apparently come from 'pattern' derived from the pages of a trade catalogue of 'Garnkirk Fire-clay Goods.' But when we come to what a friend has denominated the 'fayture' of the design, the inevitable central tower, it is here that the weakness of design culminates. Grand central entrance—a four-centred arched opening, very much 'sat upon' by the tower, until it is broader than it is high. Were it not, indeed, for the unconcerned attitudes of the aristocracy thronging the 'hall door,' one might anticipate a catastrophe by the 'squelching' of the entrance arch. From this level the tower creeps up by some ecclesiastical-looking and, as regards the rest of the design, incongruous buttresses; thence a straight shoot of beauty unadorned, enlivened with three narrow slits upon each face about 15 or 20 ft. high; then a wiry string-course with emaciated gargoyles. Thence the tower proceeds upwards without varying from its chaste and severe rectangular plan, to hold shallow square panels for clock dials, and to carry four most 'shaved' octangular pinnacles with inverted 'extinguisher' corbels, a clumsy machicolated and embrasured cornice and parapet, an ill-designed two-storey roof terminating in helpless fireworks of iron-work, and an egre-

gious and colossal cock; all this drawn in uncomfortably tumble-over perspective, and we have one of the most important designs for a central 'fayture' (to quote our friend) that town-hall competition, since the Hamburg one, has brought forth. One is led in natural surprise to ask how is this 'suchly'? R. P. Spiers is known to fame as an able artist and designer. Can it be that the masterly artistic etching, the play of light and shade, the animated aristocrats, men and women, with vehicles *passim*, are from the pen of Spiers, superimposed on the feebler outlines by his collaborateur whose name is a new one to the public? However, like the *Origin of Species*, this is a recondite matter unprofitable to pursue.

The *Building News* gives us four designs (prize ones) by Paley and Austin, for mountain churches for the Carlisle Diocesan Church Extension Society. All are quaint and characteristic, and happily conceived to adapt them to a peculiar *genius loci*. A little more variety of ground plan, and consequent interior effect, might perhaps be desired. Next we have the "Red House," Bayswater—J. J. Stevenson. It can be only said of this that it doesn't look much better on paper than it does in reality. Twenty years hence, when it is well smoke-begrimed, this building will be a plausible forgery of a genuine "Queen Anne" house; but, being as it is an archaic and clumsy if "curious" piece of brickwork, without quaintness or historical interest as a veritable outcome of the epoch of either Anne or Victoria, it is not one for an architect to be proud of.

Let us loyally recognise a new current of taste in architecture, and for convenience call it "Queen Anne Revival," and, if it has staying powers in it, set heartily to work to develop and use this movement of Free Classic or whatever it may be; but do not let us descend to a manufacture of sham curiosities, forgeries of veritable ugly brick houses of Anne's or Dutch Billy's time. We respectfully decline with thanks the use of Mr. Stevenson's details, which adorn another page, inclusive of the bow-pot and small bush and the ghostly gentleman with the cloak, feather, sword and Queen Anne balluster calves. If I am to go into this kind of thing let me be consistent. I will have powder and patches on my wife, a full-bottomed wig, and court costume from Messrs. Gunn's wardrobe for myself; confine my reading for the space of one month to the pages of the *Tatler*, the *Spectator*, the *Rambler*, and the writings of the late Mr. Jonathan Swift, Dean of St. Patrick's, and so endeavour to bring myself into tone to perpetrate as ugly a curiosity-shop as the Red House, Bayswater.

These are not valuable or intelligent remarks on what I have been studying, but they may serve to set the ball rolling, and call out the views of others on things in general, as the architectural panorama passes by. I forgot to mention that the *Building News* gives, in addition to the four pages of excellent illustration I have noted, a double page—XVIth and XVIIth century sculpture—these illustrative of the series of papers on sculpture by Dr. Zerffi that have for some time dragged their slow length along, without, I fear, in spite of their respectable and scholastic excellence, arousing a lively feeling of excitement among the readers of the *Building News*. \*

PUBLIC RIGHTS AND PUBLIC  
NUISANCES.

THE ALLEGED DANGERS OF SEWAGE FARMING,  
ETC.

## FOURTEENTH ARTICLE.

MORE than once a panic was endeavoured to be created by newspaper correspondents, and indeed by some medical practitioners too, by asserting that the diseases of cattle have been produced from their eating the produce of sewage farms. The assertions have been even carried to a greater length, some going so far as to say that the milk of such cattle,

\* See page 272.



when partaken, generated typhoid in households, whole families being attacked with the disease. It has been also attempted to be proved that cattle will not eat the produce of such farms; but this statement can no longer be upheld, as cattle will eat ravenously of sewage grass and other produce. Single beasts, like certain individuals, may have their peculiar tastes, and, as the old adage has it, one man's food is another man's poison; but cattle in general have been found to feed greedily off sewage farm produce.

The question next arises, Are entozoic diseases propagated directly in cattle, and indirectly in men, through the spread of sewage over the soil by means of sewage irrigation? In the "Manual of Public Health," edited by Mr. Ernest Hart, the subject is discussed, and a number of facts are adduced which we think ought to prove satisfactory upon the point. Dr. Cobbald suggested that the *Bilharzia hematobia*, a parasite common to Africa, and prevalent in the summer time, can be introduced and conveyed to this country in such a manner; but Dr. Cobbald has at the same time shewn that the embryos of this parasite are destroyed in a very short time in impure water, as proved by experiments which shew that little harm can result from sewage distribution, so far as parasitism is concerned. Herbivorous animals, we all know, are subject to parasites, so the suggestion runs that the ova of these parasites contained in the sewage are distributed on the land, and eaten by the cattle with their food. They next undergo, it is said, a stage of development in them, and a still further stage of development in the human subject when the meat of such cattle is eaten without being properly cooked. This theory is not wanting in ingenuity, and is calculated to make nervous folks more nervous than ever. In fact, it may be classed amongst the sensational theories for which this age is remarkable. The theory is not borne out by facts; and if it has been, we have failed to meet with them.

We have already stated that irrigation has been practised for many years, and in Edinburgh not in the best manner; yet in relation to that place a single case of parasitic disease has not yet been traced. The experiment of the British Association Committee supplies further proof of the fallaciousness of the entozoic theory in connection with sewage farms.

In an examination of the slime and mud from the bottom and sides of some sewage carriers at the Earlswood Farm it was found that, although these matters contained a large amount of animal life, there was a complete absence of ova of entozoa among them. Dr. Cobbald said, "The flaky vegetable tufts collected by me from the sides of the furrows occupied by sewage currents consisted chiefly of *Batrachospermum moniliforme*, in the filaments of which were numerous active free nematodes, but no ova of any true entozoon." Further, the carcass of an ox which had been fed for twenty-two months upon sewage produce grown at Breton's Farm was examined by competent authority, in the presence of members of the British Association Committee, with the result that no trace of parasitic disease could be found in any part of the body by the most careful examination. It has also been shewn that upon these farms there is a remarkable absence of these molluscan and insect forms of life, which often play an intermediary part as bearers to the larvae of entozoa.

These results are important as shewing that the creatures are killed or driven away by the sewage, and that the parasitic diseases spoken of cannot be propagated by the medium of sewage farms. Long before the introduction of sewage farms into these countries certain soils were subject, and are still subject, to swarms of animal life of the worm and grub order, and crops have suffered considerably by their presence. The fact, however, seems to be forgotten by irrational opponents of sewage farms, who appear all at once to discover that the great breeder

and nursery of worm and animal life in the soil is sewage, and thence from sewage to crop, from crop to cattle, and from cattle to man.

There is ample evidence, however, to shew that several forms of animal life which are destructive to crops are destroyed at once by the application of sewage. The chemical properties of sewage will account for this. In the third report of the British Association Committee it appears that a crop of American oats was severely damaged and in danger of being destroyed by the ravages of the *Oscinis vastator*, one of the smallest but the most destructive of these grubs and wire worms which sometimes work such injury to cereal crops. Two heavy dressings of sewage were applied during two successive days, the result being that the grubs were entirely destroyed and the greater portion of the crop saved.

The remedial effects of sewage irrigation have also been shewn in other instances. The wonderful vitality of ova has been remarked upon, but it is certain that the impregnated ova of intestinal worms even get alive on the sewage farms? They are inhabitants of acid excretions, and are turned into a liquid alkaline from an excess of ammoniacal salts. They are tossed and beaten about in it during its passage along the sewers, often for very long distances; next, they are deposited with the sludge in the sewage tanks, and if they do get upon the land, if the sewage is made pass through the soil, they pass down through the pores, and are thus got rid of.

But is it necessary that cows should graze upon sewage meadows? That they do graze, we know; and evil results have not been proved. With grass cut and carried to the stalls it is scarcely possible that danger can arise, from what has been already stated. From an entozoal point of view, it is perhaps better that human excrement should be distributed on the soil by means of water, than spread over the land in the fashion of farmyard manure. If we admit—which we do not—that a certain increase of parasitic diseases occur through the using of sewage in the way stated, the advantages from the worst point of view outweigh the evils possible. The utilization of sewage, from a sanitary point of view, is indeed an enormous gain to the community, as the most offensive of all refuse matters is removed from the midst of a teeming population, where its presence is fruitful of illness, disease, and death, and a really fertilising material secured for the soil.

In thus speaking of the advantages of sewage farms, we have no desire to argue that sewage is not susceptible of other useful ends, and that methods of treatment may not yet be discovered possessing great public advantages. We instanced in our last the precipitation treatment of General Scott. There exists no reason why other useful forms of sewage utilization should not be carried out where irrigation farms by the water-carriage system are not possible, or are very difficult to carry out; but, where possible, we are of opinion that the sewage of towns and cities should be secured for the land, and all rivers, streams, and brooks whose waters are used for domestic and drinking purposes freed from pollution. Long before either London or Glasgow had an embanked river, the public spirit of Dublin secured a good embankment and a line of quays. Had the design and wishes of Sir Christopher Wren been carried out, London would have had an embankment early in the eighteenth century instead of in the latter half of the nineteenth century. To the neglect, however, of the modern local rulers of our city we owe the fact that, notwithstanding the embankment of the Liffey, the river still remains an elongated cesspool and receiver of all the filth of Dublin. For years our citizens have been poisoned by the exhalations from this river of dead dogs and human exuvia; and what should have been utilized on the land for increasing the food of our people, has been allowed to rot and ferment under our nose, to the destruction of public

health and the murder of a large portion of our population.

#### PUBLIC HEALTH IN IRELAND.

APPENDED to the Quarterly Return of the Registrar-General there is usually to be found sundry notes from the district registrars as to the condition of the towns over which their duty extends. These notes, though short, are on the whole most useful, as they furnish an index to the state of the national health. We will summarise particulars of cases of the worst kind, with a view of shewing the sanitary state of the country in the four provinces, and affording means of judging the cause and consequences of sanitary neglect.

Vaccination seems to be greatly neglected in different places north and south, and the baneful practice of inoculation resorted to with the consent of parents at the hands of illiterate persons or quacks. The registrar of the Dunkinealy district (Donegal Union) reports six cases of deaths from small-pox, of the ages of 12, 12, 11, 17, 16, 14. The law as it at present stands is powerless to reach the guilty party, but the parents, we think, should be held responsible. The deaths from small-pox during the quarter numbered 123, as against 141 in the first three months of the year, and 220 in the corresponding period of the preceding year. Of the deaths from this disease, 109 occurred in the Province of Ulster, 11 in Connaught, 1 in Leinster, and 2 in Munster. The disease in many instances was imported from Scotland by persons arriving from that country suffering under its effects. Why do not the officials of the ports or sanitary authorities watch such cases? The deaths from fever during the quarter amounted to 862, against 787 in the preceding quarter, and 958 in the corresponding quarter of last year. The proportion of fever seems to be nearly equally distributed over the four provinces. Ninety-two of the deaths from fever occurred in the Dublin Registration District, and one-half of these resulted from typhoid or enteric fever. This is a plain and suggestive tale for the people of Dublin and her local sanitary authority. There were 731 victims to scarlet fever; in the corresponding quarter of last year there were only 376, and in the first quarter of this year 760. There were 176 of the deaths from this disease in the Dublin district, and in some of the provincial districts the disease was of a very malignant type. In No. 2 Belfast district 2 cases proved fatal within forty-eight hours. Whooping cough produced 504 deaths; diphtheria, 143; measles, 149; diarrhoea, 407. There is a slight decrease in some of the above. Only 10 deaths are attributed to simple cholera.

Taking a number of the towns *seriatim*, we find that in Armagh small-pox was prevalent, and in some districts scarlatina, fever, and typhoid. Measles has been prevalent in Ballycastle, and the sanitary state of the district is pronounced most unsatisfactory. Ballymena W. is healthy, though exhibiting some cases of small-pox. Ballymena (Broughshane) has a high death-rate, produced mostly by cases of diphtheria. In Ballymoney W. measles and whooping cough among children is a prevailing epidemic; the sanitary arrangements are accounted good. In Banbridge (Ballyward) scarlatina is epidemic, and the dwellings are mostly in a bad state. In Banbridge W. there has been several deaths from typhoid, and we do not wonder, when Dr. Cameron, our City Analyst, stated that, of the seventeen pumps, not one of them yielded pure water. The drains in some instances run close to the well, and of course the sewage percolates through the intervening soil. Many houses have no yards, and house refuse is thrown out upon the streets. The rain washes the refuse into the drains, and from the drains there is an easy transit into the well; in fact, as the district registrar states, the people of Banbridge are drinking a solution



of excrement. In other portions of the town the case is not much better.

In some of the districts of Belfast small-pox has been prevalent, and also fever and scarlatina. The speculative house property in the town is bad, and the dwellings of the mill-workers require improvement. One woman, whose death was registered, died at the age of 96, another at 92, and a third at 75; and one man at 84. In the electoral division of Leterloan, in Coleraine, the sanitary condition is extremely bad; the manure heaps are to be found mostly before the doors. How the place can be healthy under such conditions, we are at a loss to know. Among the deaths registered there was one at 100, one at 98, one at 90, five above 80, and 5 above 70.

Cookstown appears to be in a healthy condition, and to yield a few cases of death at a very advanced age. Five cases are registered above 80, including 1 at 90, and 1 at 100 years. The note of the registrar may be reassuring to Mr. Thom, late of *Notes and Queries*, so we will quote what he says in respect to these deaths, particularly the centenarian one:— "I have good reason to believe is not exaggeration, as two generations of my family have known her intimately, and many years ago I have heard her spoken of as a very old woman. She preserved her intellect till within a day or two of her death." In the preceding centenarian case in Coleraine, the district registrar states he has no doubt of the accuracy of the statement. These authenticated cases, we fear, will drive Mr. Thom mad; but, before he credits this, he would insist on seeing the parish register, and even then, we fear, the incredulity of a St. Thomas would be evidenced.

In Downpatrick scarlatina and fever are prevalent, the water is pronounced unfit for use, and the sewerage bad. In the Portaferry quarter there were 60 cases of scarlatina. Portions of Lurgan suffered from fever, arising from stagnant cesspools. Scarlatina of a severe type has been in portions of Magherafelt, and also cases of small-pox. There were several cases of deaths here over 80 and 90 years. In Newry a few cases of small-pox have occurred, and at Newtownlimavady scarlatina has been prevalent during the quarter. At Letterkenny typhus and typhoid occurred in a few cases, and the sanitary arrangements of the town are pronounced very bad. Small-pox is scattered over portions of Londonderry, and also scarlatina. Infant mortality is high at Milford, through imperfect sanitary conditions. In Sligo (Ballymote) whooping cough is prevalent, and the sanitary conditions very indifferent. One case of death at 108 years was registered.

At Skerries, in the County Dublin, some public pumps have been erected, but sewers are still required, as stagnant water lies about the place. At Swords the houses of the poor appear to be overcrowded, and in many cases not fit to live in. At Baltinglass measles has been epidemic and typhoid prevalent. In Drogheda matters are beginning to improve, through compulsory regulation, and compulsion needs to be tried in the majority of places throughout this country, for without it public health cannot be established. Dublin, north, in Coolock and Drumcondra, suffered from fever of the typhoid type, and scarlatina, through bad drainage and deficiency of pure water supply; and Dublin, south, at Tallaght, scarlatina has been prevalent.

In portions of Dundalk scarlatina has been prevalent, and several deaths are registered above 80 years, and two above a century. Zymotic diseases have been prevalent at Kells, and the labourers' cottages are in a bad condition. The same may be said of Naas, whose sanitary condition has been a long time in a very unsatisfactory state. Granard exhibits a bad sanitary state, and outbreaks of fever. Monaghan has experienced much sickness. Sanitary requirements are being carried out at Roscommon, but in Strokestown whooping cough has been prevalent. At Gowran (Kilkenny) scarlatina

and measles both are prevalent, and of a bad type, and typhus has appeared; and at Castlecomer scarlatina has caused several deaths. At Emly (Tipperary) there was scarlatina of a malignant type, spread by the abominable practice of holding wakes. In the Ballinasloe district, measles and several cases of low fever; sanitary condition indifferent. In the Ennistimon district fever of a mild type prevalent.

Throughout the entire western division zymotic diseases have occurred, and the sanitary condition, on the whole, is bad. In the Callan district there was an epidemic of diphtheria; the sanitary arrangements of the houses are bad. In the Fermoy quarter fever is prevalent; the water supply bad. In one instance there were 7 cases of typhus in the one house, and not an uncommon sight to see 5 or 6 children suffering from the disease lying in the one bed. Manure heaps are still to be found in Lismore district before the doors of the houses, producing the usual crop of fever cases at intervals. At Mitchelstown there has been an increase of fever. In New Ross district whooping cough prevails extensively. In the Waterford district fever and scarlatina have been abundant. The houses and cabins of the poor in several places are wretched. In portions of the Youghal district scarlatina, whooping cough, and fever have been prevalent, but of a mild character. In Bantry fever was prevalent, but is now abating. Several cases of old age, and two over 100, reported.

Cork No. 2 district is in a very bad condition, and nothing seems to be doing to mend it. The district registrar considers it a waste of time to be writing any more reports. At Queenstown scarlatina of a virulent type occurred. In portions of the Kinsale district whooping cough has been prevalent. In the Newcastle district, at Broadford, among the deaths one, William Long, is reported at 108 years, a tenant on the estate of Lord Lismore at Feohanagh. The district registrar says:—"As far as I could ascertain from his family, his habits were temperate; he neither smoked nor took snuff; he walked about within a fortnight before his death, and was a farmer by occupation, and a widower." At Feenagh, in same district, one female died at 106 and another at 90. In the Skibbereen district severe whooping cough prevails. In the Tralee district sanitary arrangements are very indifferent, and the water supply in places bad. In the three last-named places there have been some cases of deaths above 100, and between 90 and 100 years. We may here add about cases of longevity that in the Return 15 persons are stated to have attained the age of 100 years and upwards, and of these 7 have exceeded 100, their ages being 101, 104, 105, 106, 107, 108, 108. Here is a handful of nuts for Mr. Thom.

According to the returns obtained by the Irish Constabulary and the Metropolitan Police, the number of emigrants who left the ports of Ireland during the quarter ending the 30th of June last was 34, 317—17,732 males and 16,585 females,—being less 13,097 than the number who emigrated during the corresponding quarter of 1873.

Under the Irish Health Act, which has now come into force, we hope soon to see an improvement, but we are not sanguine that much progress will be made in a sanitary direction for a considerable period to come. The people need to be educated to cleanly habits; and before individual neglect is visited with penalty, local public neglect should be rendered next to impossible. Compulsion will be found as necessary in one case as in the other, and the local rulers and guardians of the poor should be held answerable for all violation of the Sanitary Acts that can be traced home to them through their careless indifference or wanton negligence.

We anxiously look forward to the results of the operation of the Irish Health Act. The strength of a chain is only equal to its weakest part, and we fear the defective machinery of the new Act will soon become

painfully apparent inside and outside our courts of law. Notwithstanding, we hope for the better.

### THE BANIM FAMILY.

At a late special meeting of the Kilkenny Town Council the following resolution was proposed and carried unanimously:—

"That a committee, consisting of members of this council, in conjunction with the honorary secretaries of the Banim Testimonial Committee, be appointed for the purpose of drawing up a memorial to the Right Hon. B. Disraeli, First Lord of the Treasury, praying that a pension be granted to the widow and daughters of the late Michael Banim, in consideration of that gentleman's services to literature in connexion with his late brother, John Banim, as joint authors of 'Tales of the O'Hara Family'; also, that the said committee be empowered to take whatever steps may be considered necessary, such as procuring the signatures of the noblemen, magistracy, and other influential parties to the said memorial, in order to secure success in a matter which concerns the honour and duty of Ireland towards the family of the late Michael Banim."

In furtherance of the object, Mr. Neilson Underwood writes to say that he has made one of Banim's tales, "Crohoore-na-Bilboge," the ground-work of a play, and he offers to allow the play to be produced at any of our theatres, for the benefit of the widow and daughters of Michael Banim. He says truly that not a single original play has been produced in Dublin for years, and that "it is hardly creditable that the Dublin theatre is not Irish or original." He might have said —; but no; what might be said with truth is better unsaid. Whether through State aid or native assistance, the Banim family have far stronger claims to be considered than many who have been well provided for through both resources.

### THE BESSEMER SALOON STEAMER.

THE launch of this steamer, designed to obviate the sickness attendant on sea voyages, was successfully effected on the 24th ult. It has been designed more particularly in view of the short channel voyage between Dover and Calais; and Mr. Reed, the constructor, is firmly convinced that the rolling motion will be completely neutralised by Mr. Bessemer's invention. Tunneling the channel, bridging it over, and the conveyance of trains in large steamers in which the oscillating movements shall be prevented, have been many times discussed. Difficulty of harbour accommodation was one of the drawbacks to the adoption of the latter plan. Whether the vessel now launched proves a success or not, we are certain the tunneling of the channel will be carried out before long. The new steamer may be described thus:—The high saloon amidships gives the vessel something the appearance of a turret-ship. Her length is 350 ft. at the water-line. Each end is rounded off, and is nearly the shape of a cigar, and by the fixing of a rudder at either end the ship may be steamed in both directions, and turning round in harbour is rendered unnecessary. The decks at each end are low, and the sides of the ship being rounded off, she will make the least possible resistance to the water. Hence not only speed is attained, but steadiness. She will be propelled by four paddle-wheels, a pair on either side, 27 ft. 10 in. in diameter, each wheel having 12 feathering floats. When going at full speed it is calculated that the leading pair of wheels will make 32 revolutions per minute, and the hinder pair will move faster, as they will receive the impetus given from the water falling from the preceding couple. It is estimated that the ship will make 20 miles an hour going at full speed. The engines are oscillating, expansive, of 750 indicated horsepower, working up to 4,000, which, should it be required, may be increased up to 5,000 horse-power. The vessel is fitted with two pairs of engines, one pair at either end, each



having two cylinders of 80 inches diameter, and the stroke of five feet working at a pressure of 30 lbs. per square inch, steam being supplied from four box-shaped boilers, each with four large furnaces, and fitted with a tubular superheater in the up take to save weight and space. The size and shape of the vessel, independent of the perfect level of the saloon floor, and the mainstay against pitching which the vessel possesses, together with her rapid sailing powers, are thought capable of making the passage across the Channel not only free from misery and illness, but positively pleasant. It should be added that hydraulic machinery is fitted to the steering apparatus and capstan gear, provided by Messrs. Brown and Co., of Edinburgh, and the hydraulic controlling gear of the saloon has been put in by Messrs. Galloway and Co., of Manchester. The passengers' luggage will be raised by a crane, and the ship will be provided with two large life-rafts on Mr. Christie's patent, and four boats. Above the low ends of the vessel is raised breastwork, about 8 ft. high and 254 ft. long, and the entire width of the vessel. Upon the breastwork are deck houses for private families, smoking rooms, refreshment bars, &c. The vessel is comfortably furnished, and there is every convenience for passengers. A large number of persons assembled at Earle's Shipbuilding Company's yard to witness the launch, among whom were Mr. E. J. Reed, C.B., the designer of the vessel, and Mrs. Reed; Sir Spencer Robinson; Mr. Henry Bessemer, the designer of the saloon; Mr. Bingham; Mr. John Galloway, jun.; Mr. C. H. Wilson, M.P.; Mr. C. M. Norwood, M.P.; Lord Henry Lenoxy, First Commissioner of Works; the Mayor of Hull; Alderman Seaton, and Mrs. Seaton; Dr. A. K. Rollet; Mr. A. Rollet; Mr. E. P. Maxsted; Mr. Holden; and several officers of the English, French, and Chilian navies.

### THE BALFE MEMORIAL.

A STATUE of Michael Balfe, our late eminent native composer, was unveiled on Friday last in London by Sir Michael Costa. It has been set up in the vestibule of Drury-lane Theatre. It is the work of a Belgian artist, M. Malempré. The funds of the memorial were raised by subscription, and several of the subscribers were present at the ceremony. It may be stated that the memorial committee, of which Mr. Dion Boucicault was chairman, endeavoured to secure the late Mr. Foley to execute the statue of his countryman, but failed, as they also failed in securing the services of other British sculptors of note. The commission was accepted by the Belgian artist, who was a pupil of Mr. Theed. It was intended by the committee to place the statue in Westminster Abbey, but the application was met by a refusal, so the theatre, where some of his early triumphs were achieved, was fallen back upon as not an unsuitable spot. The statue is about 7 ft. in height, and depicts the artist in the act of composition, holding a manuscript in the left hand, with the pen in his right. The *posé* of the figure and the expression of the countenance are both accounted good, and breadth of outline is secured by the artistic arrangement of the folds of the cloak, worn to leave the right shoulder and arm free. Among those present, in addition to several ladies, were: Lord Alfred Paget, Sir Geo. Armitage, Sir Michael Costa, Messrs. Gruneisen, Chatterton, Creswick, J. W. Davison, W. D. Davison, Lazarus, Maycock, T. Chappell, Arthur Matthison, Raphael Costa, Garcia, Osborne, Manns, Brinley Richards, Sautley, Henry Phillips, Halliday, G. A. Sala, Lyall, Honey, C. Kenney, and John Hollingshed. The proceedings were opened by Mr. C. L. Gruneisen, who, having explained that he occupied the chair in consequence of the unavoidable absence of Mr. Boucicault and Sir Julius Benedict, proceeded to narrate the circumstances which had led up to the event of the day. Mr. Gruneisen next gave a sketch

of Balfe's varied and active career, and finished by reciting a short poem written by a lady to celebrate the occasion. After the unveiling by Sir Michael Costa, a few words were spoken by Mr. George A. Osborne, a friend and countryman of Balfe's. The company then adjourned to the saloon, where Mr. Chatterton, the lessee of the theatre, had provided a *déjeuner*. The chair was taken by Mr. Gruneisen, supported by Sir George Armitage and the giver of the feast; and here "The memory of Michael Balfe" was drunk in silence. It would have been a satisfaction to have had the features of Balfe perpetuated by his countryman Foley, but we dare say the cause of his refusal may be put down to having too many commissions already on hand. Sculptor and composer are now both at rest, but are not forgotten by the lovers of their respective arts at home and abroad.

### CIVIC LYRICS.—No. LXX.

#### THE BILLS, THE BILLS.

The Bills, the Bills, the endless Bills,  
That filled some members' pockets and tills,  
Hatched and matched and dispatched with speed  
To help the lawyers and friends in need!  
Who were their framers? who canvassed votes,  
And turned and wheeled and turned their coats,  
And looked and laughed at the City's ills,  
And cried "Hurrah for the Bills, the Bills?"

The Bills, the Bills, the splendid Bills,  
That rushed along like the mountain rills,  
Scattering dust in the people's eyes.  
Made of gammon and spinach and lies;  
Designed, of course, for the public good—  
Not with two faces under a hood!  
What a windfall for the paper mills!  
Hurrah, hurrah, for the Bills, the Bills!

The Bills, the Bills, the glorious Bills,  
As sure in their action as doctors' pills.  
Thunder might come, but water was sure,  
With sewage and gas, to work the cure;  
And after that came stalking ghosts,  
Scratching their heads for vacant posts.  
Then by degrees the vacuum fills—  
This is the fruit of the Bills, the Bills!

The Bills, the Bills, the wondrous Bills  
Are suffering now 'neath chronic ills.  
Lawyers fight shy, for the biting frosts  
Of peering auditors spoil their costs;  
And leaders of cliques, who raised the wind,  
Give their "long lingering look behind."  
While the people's thunder the forum fills,  
The graves are dug of the Bills, the Bills.

CIVIS.

### UNKNOWN DUBLIN.

BY THE "OLDEST INHABITANT."

Edited by Mark Philip O'Flanagan, T.C.D.

OUR articles under the above heading have elicited some interesting communications from different quarters. *In re Novo Noster-street*, we have received another letter, which we annex, giving a list of names worthy of preservation, all of which received their early education in the once famous Feinaiglian Institution. Many of the scholars whose names are here printed will be recognised as individuals who have distinguished themselves in different walks of life; some are in our midst still, but many have passed beyond the proverbial bourne. Our friend "Skelley B." will no doubt be recognised by some of his old school-fellows under his original *sobriquet*, and the publication of his jottings may enable a few others to furnish their memories, so that some additional reminiscences may result. To Mr. O'Flanagan and the "Oldest Inhabitant," such notes are welcome and refreshing, and are a spur to further efforts in unfrequented fields long unnoticed and almost forgotten in the Unknown City:—

SIR,—I was much interested in reading, in your publication of the 15th September, the memories and associations of "Unknown

Dublin, by the Oldest Inhabitant," relative to the Feinaiglian Institution, as they revive in my memory scenes of my boyhood and some of the happiest days of my life (school-boy period), at the time scoffed at as too ridiculous ever to be entertained.

I quite well remember "the roll" spoken of in the letter of "Old Boy." It was a beautiful and elaborate piece of penmanship by Mr. Barton, the writing master, recording the success at Trinity College of quondam pupils. In the corner at the bottom was inscribed "Barton fecit." It would be a pleasure to have an opportunity of once more perusing it.

With your permission I will furnish you with another roll, transcribed from my memory, which may be of some interest to such of your readers as were associates with the "Old Boy" when he was young. It is a list of those *I remember* to have been at "Lux" during my career of about five years. It will be seen the pupils came from "all squares," and were sons of some of the leading gentry:—

|                               |                                |
|-------------------------------|--------------------------------|
| Abbot.                        | George Lees.                   |
| Cuppige.                      | Late Sir W. Barrington, Bart.  |
| Leslie.                       | His brother (now Sir) Croker   |
| Taylor.                       | Barrington, Bart.              |
| Butson.                       | Chas. G. Von Feinaigle         |
| Peter Burke.                  | George V. Britain (heffield).  |
| Bodkin.                       | Duke Crofton.                  |
| Denis Kirwan.                 | His brother (Royal Artillery). |
| Evatt.                        | Chas. Henry, do.               |
| Abel Labertouche.             | Adair.                         |
| Cote.                         | Heron.                         |
| Colquhoun.                    | Geale.                         |
| Acheson French.               | John Joseph Duruty (France     |
| Lindsay.                      | and Trinidad).                 |
| O'Brien (Limerick); died at   | Two Mathews (Demerara).        |
| the school, of measles.       | Sutton Wexford).               |
| James M. Caulfield, now Earl  | Watson.                        |
| of Charlemont.                | Vokes.                         |
| Montgomery Caulfield.         | Three Isaacs.                  |
| Cathrew.                      | Standish Vereker.              |
| Piers Aylwood                 | William Wise O'Grady.          |
| John Cooke                    | Cruise.                        |
| Richard Cooke                 | Sheil.                         |
| William Flood                 | Denis Clarke.                  |
| Henry Flood                   | Four Clerks.                   |
| "Harry" Burtchall             | Two Barrys (Cork).             |
| Peter Burtchall               | Three Jamesons (Donny-         |
| G. D. Burtchall (Royal        | brook), one of them subse-     |
| Engineers); wrecked           | quently in Life Guards.        |
| off coast of Spain            | Richards (son of the judge).   |
| Four Clarendons.              | Torrans (son of the judge).    |
| Three Ogles.                  | Hamilton Law                   |
| Marcus Synott.                | Two McConchys } Raheny.        |
| Two Canes.                    | Four Smiths (Annesbrook).      |
| Hornidge.                     | Two Linsey Bucknalls.          |
| Thomas Patterson } Donegal.   | Harty.                         |
| John Cochrane                 | Four Williams.                 |
| Four Maunsells (sons of Lady  | Vicars.                        |
| Cath-rine Maunsell), one of   | Martin.                        |
| them subsequently Major       | Denis Bingham.                 |
| 94th Regiment                 | "John T." Lloyd (Co. Tip.).    |
| George Abbas Kooli D'Arcy     | Preston.                       |
| (94th Regiment).              | Grey (son of Col. Grey, Scots' |
| Geo. Woods Mannsell.          | Greys).                        |
| Armstrong (60th Rifles).      | Monaghan.                      |
| Sir Gilbert King, Bart.       | Andre Allen Murray (now        |
| Sir William O'Malley, Bart.   | Ker).                          |
| Henry O'Malley.               | His brother, James Murray, do. |
| W. Acheson O'Brien (Leitrim). | Richard Armstrong (now Q.C.)   |
| Sir John Lees, Bart.          | Also his brother.              |

The present learned and distinguished Sergeant Armstrong was in my class at school. I well remember him, even at that time, to have been witty, sparkling, and good-natured, talented and assiduous, evincing thus early a decided taste for "the law." By him I was first instructed as to the course of proceedings at law courts—empanelling juries, &c.

The masters of my time were:—

|                          |                          |
|--------------------------|--------------------------|
| "Head"—Rev. John Hawkes- | Hallam.                  |
| worth, LL.D.             | Bowen Thompson.          |
| Jones ("Bobby Clocks").  | Hatch.                   |
| Two Robertsons.          | Townsend.                |
| "Darbe" Magrath.         | (Little) Irwin.          |
| Sheridan.                | "Brophy" Murphy—Drawing. |
| Cornwall.                | Sattelle—Fencing.        |
| "Domine" Graham.         | Magrath—Dancing.         |
| Abelshauer.              | Bojeau, Huguenau—Gymnas- |
| Andrew Armstrong, M.A.   | tics.                    |
| Burton.                  |                          |

House and wardrobe keepers:—

Miss Esmonde and Miss Adair.

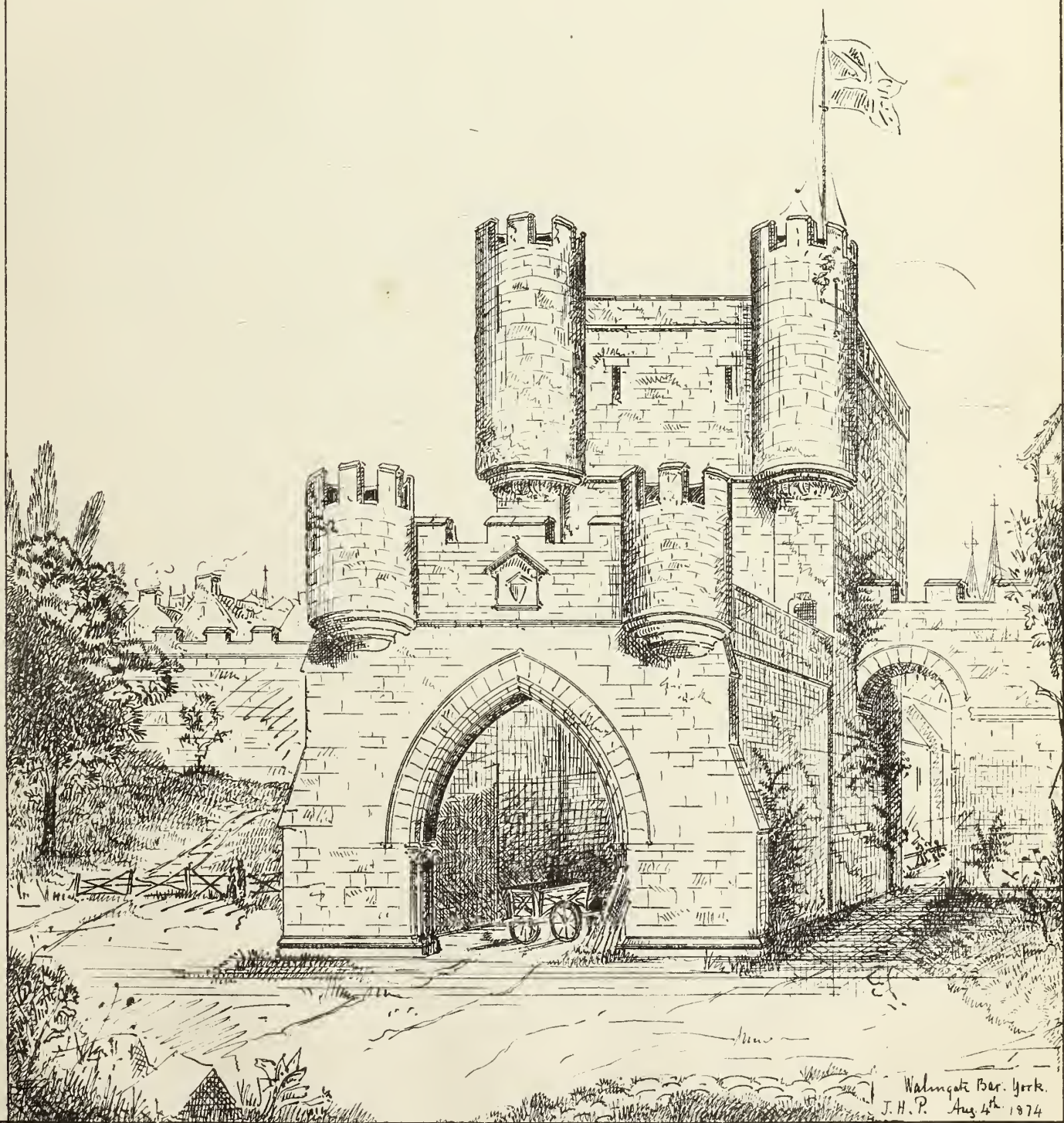
Superintendents:—

|          |                 |            |
|----------|-----------------|------------|
| Querchi. | Aaron Moffatt.  | Davenport. |
| Sinnot.  | "Bulley" O'Neil |            |

I know Dr. T. D. Gregg succeeded Dr. Hawkesworth as head master, but the latter had not retired before I left school.

A few reminiscences of mine:—One vacation, while waiting at the gate for a jarvey (all the boys gone the day before), two artizans coming up read out one of the Latin inscriptions chiselled out on one of the stone frontages—"Sic siti latantur." "Whet is





Walmgate Bar, York.  
J.H.P. Aug 4<sup>th</sup> 1874



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UNIVERSITY OF ILLINOIS



the meaning of that?" said one. "Of course," said the other, "sick of the city, they are gone to the country!"

Another amusing incident, witnessed by some of the boys idling into the gate-lodge, where Mrs. Macdonald was instructing her son "Joe," and, as she evidently had not been imbued with the Feinaighian mode of instruction, cried out to her hopeful, "Ah! read out bowld, and never heed the stops."

And now, Mr. Editor, I trust you can decipher the foregoing, for my pen has been toggled with ink. I hope also that my information is intelligibly conveyed—for I *did* learn something at "Lux," and was fairly grounded in Latin, as the following rendering will show:—

Cock your eye and fire away—  
Gallus tuus ego et ignis via;

besides the head master encouragingly said to me that, after I had been told a thing one thousand and *oneth* time I then barely began to think I heard *something* about it. It is now, Mr. Editor, an appropriate winding-up aspiration—"May we all meet again."

SKELLEY B.

### CORK SCHOOL OF ART.

WE are pleased to see, by the last report of the Society of Arts, that the students of the Cork School of Art are again successful in the technological examinations, viz.—Jeremiah F. Mullins, 1st elementary, with a prize of £5; Mathew Mullins, 2nd advanced, steel manufacture; Thomas Fleming and James Pulvertaft, 2nd elementary. The two latter, on completing the subjects required by the Science and Art Department, will be awarded the full certificate. About two years since it will be remembered that a gratifying proof of the Cork students in open competition with the artizans of the United Kingdom was recorded, when Mr. Jeremiah Mullins carried off the silver medal of the Worshipful Guild of Coachmakers, and last year his brother, Mr. J. Mullins, was awarded a scholarship of £50 by the Society of Arts, entitling him to attend at the Queen's College for scientific instruction.

Commenting upon the subject, the local *Herald* says:—"It is to be hoped that these technical examinations will be more generally availed of by the intelligent artizans and others engaged in the constructive arts, and that they will endeavour to qualify themselves by attendance at the evening lectures and studies specially adapted for them at the Cork School of Art. Independent of the money prizes which may be obtained, the knowledge which will be gained is calculated to make them more skilled and intelligent workmen." So say we.

### THE HEALTH OF DUBLIN.

DUBLIN at present occupies an unenviable position as regards the public health. For the week ending the 19th September the deaths registered amounted to 180—97 males and 83 females. This represents an annual mortality of 30 in every 1,000. The average number for the corresponding week of the previous ten years was 145. The death-rate in the city of London was 19 in every 1,000; Glasgow, 26; and Edinburgh, 21. In the case of the city of London it must, however, be remembered that the city proper is of small area compared with the London metropolis. In Dublin zymotic diseases during the week alluded to proved fatal in 62 cases; of these deaths 5 were ascribed to fever (typhoid or enteric), 34 to scarlet fever—exactly double the number registered during the previous week, and the greatest mortality of this disease in any week since the Registration Act came into operation in 1864. There were 15 cases of deaths from diarrhoea, and 9 cases resulted from convulsions. The other cases of death in number are not remarkable. Scarlet fever seems to be very prevalent over the British Islands, and in two places—one east and west of London

respectively, Kensington and Hackney—scarlet fever has been very fatal. Sixty-seven of the persons whose deaths were registered in this city were under 5 years of age, and 30 were aged 60 and upwards, including a woman stated to be 95 years. To the bad sanitary condition of the city may be attributed the greater number of deaths from zymotic diseases.

### CORRESPONDENCE.

#### ESSEX BRIDGE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I perceive the projecting footways of the new Essex Bridge are of 3 in. thick creosoted planks covered by asphalt. I trust, on behalf of my fellow ratepayers, the bridge will be well insured. The recent fire at the Liverpool landing-stage is sufficient warning to us in this respect, as shewing how highly inflammable such construction is. Of course, if a fire unfortunately should occur, we will be called upon to pay for the damage; insurance would protect us in the event of its being accidental.

It may be some ratepayer, in amaze,  
One day will wonder how the river 's in a blaze.  
A sapient one will tell the reason why—  
Some porter boats have just gone by;  
Sparks from their funnels have settled where,  
On the tarred planking under there.  
Blackest smoke 's extending far and wide;  
A-phalte pours blazing in the tide.  
Onward 'neath Carlisle Bridge, by Gandon's dome—  
Still on, where porkers emigrate from home,  
Mid dusty colliers, in lurid throes—  
Gathering fresh fuel as it goes,  
Floats on the liquid flame, now one vast pyre;  
It's come at last—the Liffey is on fire!

RATEPAYER.

[Our poetical correspondent has been at some trouble to shew how the Liffey might be set on fire. Perhaps what he describes is unlikely, but it is by no means an impossible catastrophe. The Liverpool platform which he adduces is sufficient evidence to shew that danger often exists in the most unlooked-for quarters. A few years ago people would not credit that passengers could be drowned in an omnibus within a few yards of a great thoroughfare, or that a train full of passengers would be burned to death near a station; yet we have experience of both.—ED. I. B.]

### THE RIVER BOYNE NAVIGATION.

THE Harbour Engineer, Mr. McCartin, reports to the Commissioners on the state of the river, and contradicts some statements as to its bad condition. His own report, however, admits that there is need of much improvement. He says:—

Since the river came into my hands it never was so free of shoals or sand-banks as it is at present. This is evident to any observer who may remark the early time of flood-tide vessels go out and come into harbour, which is the best proof that can be adduced to show the satisfactory state of the river and bar. The sailing channel, which is that portion of the bed of the river covered at low water, is, at the bar, 600 ft. wide, with a depth 5 ft. 9 in. to 6 ft. at low water O. S. T.; but the width is in many places quite too narrow and requires to be enlarged, and the various bends removed, viz.:—The bend on the north side near the bar called the Bluffhead, canals and prevents the ebbing tide from acting beneficially on the bar. Further up on the south side from the tail of the Carrick through rockshod and mussel bed round to the waterfall called Brabazon's Gut, and from there through the swash and new deep to the next waterfall, also requires taking away. When those bends are removed the channel will be so enlarged that the gain to the navigation will be enormous, a vast increase in the amount of seawater will then be admitted into the channel, which will have again to pass out on the ebb, adding vastly to the scouring power of the river sufficient to remove any deposit that may tend to settle or accumulate at the entrance to the river. I have on several occasions brought the importance of this matter under the notice of the Commissioners, and they must admit that I have been gradually re-

moving portions of one or other of those bends on all occasions that time and funds permitted, and the materials of them I have utilised and formed into permanent and properly constructed embankments along the river, the effect of which will be the fixing of the channel so as to form one permanent navigable track and prevent the constant disturbance of the sand beds caused by the raking influence of the steamboats as they pass in and out of the harbour.

### CORPORATION ITEMS.

At a special meeting of the Corporation a discussion took place over the Main Drainage accounts. Mr. Dennehy said that about two months ago an order had been made by the house for an immediate return of the entire expenses attending the two bills promoted in reference to the Waterworks and the Main Drainage. Up to the present moment, however, no returns had been made, and he now wanted to know how it came that the resolution of the house had been so disregarded. The chairman said he thought that at the next meeting, on the 1st of October, the accounts would be forthcoming, or an explanation given. After some further discussion, it was resolved that the accounts should be prepared, and submitted to the members by the first Monday in October.

In re Essex Bridge, the Town Clerk read a letter from Mr. Proud, the Secretary of the Port and Docks Board, informing the house that arrangements had been made for opening Essex Bridge as soon as the roadway was finished, and without waiting for the completion of the footways. Mr. Dennehy remarked that he never saw anything so intensely ugly as this bridge was likely to be. It outraged every idea of what a bridge ought to be. Instead of being ornamental, it was simply a granite building with iron girders, and a foot-path protected by iron railings. He should like to know from the engineer how it was that so monstrous and unsightly a structure was permitted to be erected. Mr. Murphy complained that the Corporation engineer had been ignored, and Mr. Stoney, of the Port and Docks Board, allowed to build the ugliest bridge he could think of. Mr. French reminded Mr. Murphy that the plans had been submitted to the Corporation before the work was commenced. At any rate, it was too late to find fault now. The chairman thought it was premature to give an opinion yet as to the appearance of the bridge when completed. Mr. Dennehy moved that the letter be inserted on the minutes, and the Corporation engineer directed to furnish a report in reference to the bridge. Mr. MacDermott seconded the motion, which was carried.

The Town Clerk read a memorial from Messrs. Scott, Bell, and Co., and a number of other ratepayers, praying that the sum advanced by them to the Port and Docks Board, for the erection of the temporary footway beside Essex Bridge, might be presented for and recouped to them. The matter was referred to a committee.

The Town Clerk read a letter from Mr. Finlay, of the Local Government Board, submitting his report upon the audit of the Corporation accounts. It was unanimously resolved that the report be printed and circulated among the members.

A report in reference to the office of law agent of the Corporation was read. The report stated that the gentleman to be appointed to the vacant position should attend to all the business of No. 1 Committee, and all the law business of the Waterworks Committee and Public Health department of the Corporation, as well as discharge all the law business referred to him by the Municipal Council, and should report all matters referred to him for that purpose, without delay. He should discharge all Parliamentary duty for the Corporation, of whatever kind, and, so far as practicable, be in attendance at all meetings of the council; should devote the entire of his time to the business of the Corporation, and should not engage in any law or equity proceedings, as attorney or solicitor, except for the Corporation, and should pay over to the Corporation all moneys received by him as fees, fines, or costs of any kind; that his salary should be £800 per annum, and that £150 should be the salary of a competent clerk; that his salary should be in lieu of all costs, but that he should be paid all his travelling and hotel expenses. The report recommended that the 19th of October should be fixed for the election, and that advertisements should be inserted in the newspapers. Several members objected to the recommendations in the report, and thought that, pending the life of Mr. Morgan, a salary of £600 a-year would be enough for a second law agent. Sir J. Mackey thought in strictness there should be only one law agent, at a salary of £1,000, with £200 for a clerk. Eventually the report was carried.



### THE BUILDING LIMESTONES OF FRANCE.

THE cost of building in stone is necessarily influenced by the number of courses and horizontal joints specified in any new erection. Quarry proprietors in France send architects and builders, or otherwise publish, the heights of different strata. In the same stratum blocks of a uniform height are generally extracted, but the quality and colour of strata in the same quarry vary with their height. The softer the stone the higher the stratum is likely to be. *Liais* of any value seldom if ever exceeds sixteen English inches in height of stratum; the so-called *liais de Conflans Ste. Honorine* cannot be safely used in courses of greater height than 40 centimètres, while the *banc royal* of the same quarries can be obtained in blocks of nearly 2 mètres high. Contractors find it more remunerative to use large blocks; a practice which has the advantage—of which they seldom avail themselves scientifically—of reducing the number of horizontal joints in a building. It also induces the laying of stones in the same position as they are found in the quarry, *i.e.*, on their natural beds.

M. Viollet-le-Duc has told us how the mediæval constructors made it a rule to place stones upon their beds; how in buttresses, arches, and vaulting of different kinds the stones were so laid as to receive the thrust obliquely or laterally upon their beds; and how they employed *en delit* only certain stones capable of great powers of endurance which are less easily delaminated when so fixed. Philibert de l'Orme declares in his authoritative wisdom that all stones should be laid "sur leurs lits ainsi que la nature les a fait croître." But about thirty years ago the late Mr. C. H. Smith, who had thoroughly studied the subject of lithology, told the Royal Institute of British Architects that the importance of laying stones in buildings upon their beds was generally over-rated, and that it signified little which way a stone was laid unless it presented a decidedly laminated structure. In the report of the Committee of 1861 appointed to examine the decaying portions of the Houses of Parliament, it was declared that stones therein placed *en delit* did not exhibit decay. The common practice in England of fixing stone in any position, totally regardless of bed, leads us to suppose that the majority of architects are still of Mr. Smith's opinion.

But we unhesitatingly maintain that soft calcareous stone should be laid in the walls of a building upon its natural bed, and that the beds should not be exposed to inclement weather after they have been dressed. We doubt—and M. Viollet-le-Duc lends the weight of his dictum to our doubt—whether strata of calcareous stone ought even to be subdivided horizontally, as is frequently done in modern constructions, and almost always done in England when French stone is employed. This practice exposes the heart of the stone. Until the introduction of the stone-saw blocks were never subdivided as is at present the custom; and there are still places in France where the saw is never used or is unknown, and in these masonry is often better executed than in the great centres of business. No country in the world possesses so many varieties and such quantities of stone as France. It can be obtained in blocks of any size and height of stratum; in colour, strength, hardness, it is equally varied. In public buildings or private works of more than ordinary importance, it has long been the custom to use stones obtained from quarries widely separate from each other, different in quality, and distant from the spot where they are required. It is therefore more absurd than economical to saw horizontally a stratum of 2 mètres high into five courses, when in the quarry itself a stratum of 40 centimètres high can be obtained. The trade in big blocks is so brisk that often the thinner and better layers in a quarry are left unworked or form the roof of the quarry itself. The evil is bad in France, but it is infinitely worse in those neighbouring countries to

which stones are exported, because the little peculiarities which enable the native to distinguish the bed are generally imperceptible to the stranger; huge blocks are cut up, and the bits are fixed without any heed—and sometimes the possibility of any heed—as to whence they are obtained; sufficient that they are stone and easily wrought; pieces consequently sawn from the very heart of the stratum are deliberately built into the face of a wall exposed to inclemencies of climate, atmospheric impurities, and every unknown agent of destruction.

There are certain practical platitudes which may be repeated with advantage at the present time when the employment of soft calcareous stone, often of French origin, is rapidly increasing in the new thoroughfares of London. It is by no means certain that porous stones are inferior because of their porousness. If stone easily soaks up water it also easily ejects it. Damp attacking a stone wall from the outside is infinitely less destructive than that which attacks it from the inside. Provided the action be free—from the outside to the inside and not from the inside to the outside of a stone—moisture does not seriously injure it. Soft stones for years impregnated with damp have not decomposed even though laid in the basement walls of a building. Certain stones which decompose after exposure to the air remain intact in water or damp earth. It is perfectly true, as the Commissioners appointed to inquire into the causes of decay at the Houses of Parliament reported, that stone is much more likely to decay in damp and sheltered situations than when it is exposed to the full action of atmospheric influences; but this should be "read between the lines," because in damp situations stone is not always subject to decay. If the exposed face of the stone dries and leaves the heart of the stone unnaturally wet the internal moisture will ultimately crystallise upon the surface, and during this process a certain amount of decomposition will have taken place in the stone itself. But if the stone be so placed as to permit the moisture it has received from the outside to be drawn away from it in a fluid state its component parts will not suffer vital deterioration from external damp.

The same Commissioners reported that the worst symptoms of decay occurred "under the first cornice where the exposure is inconsiderable." It is probable that the cornice was composed of the same nature of stone as the course immediately below it, but even if this cornice had been built of very hard stone the result would have been the same. The cornice received rain and moisture of all kinds; it absorbed some of the external water, but it was constantly wet, the action was constant, and above all natural, so no material harm was done to the cornice itself. But this same moisture, which oozed away naturally from the cornice-stone, penetrated the interior of the stone-course beneath, the face of which was protected from the rain, so that it dried less rapidly in the inside than towards the surface. Thus moisture remaining in the heart of the stone set in action the salt contained therein, which ultimately came to the surface in a state of crystallisation. Disintegration occurred in its passage, and the surface was ultimately raised in fine dust, then it scaled off. Under similar circumstances some stones destroy others. Limestones suffer quick deterioration when placed next to certain sandstones. Various kinds of lime and cement eat into soft calcareous stone, which, besides, contains within itself the elements of its own destruction; and damp insidiously admitted will set in motion these elements which in a latent state are harmless, and necessary to it. Hence the wisdom and utility in northern climates of steep gables; drips of sufficient but not deep projection; almost vertical watertables and copings; gutters supported upon corbels, and isolated from, not laid upon, the wall; regulated courses of schistous substances, courses of bitumen and sand, and other non-absorbent materials; hollow walls, particularly when

composed of different kinds of stone, rubble, and brick; external down pipes entirely disengaged from the wall, if gargoyles, which are infinitely safer, cannot be used; and a host of petty precautions of which modern progress still takes little heed.

Mr. Edward Hull, in his excellent treatise on building stones, published by the Messrs. Macmillan, takes a somewhat gloomy view of calcareous stone in general. He has not sufficiently allowed, we presume to think, for the often ignorant application of limestones to building purposes. Mr. Hull says very truly that a climate like that of the British Islands and North-Western Europe, is the most destructive to buildings of which the materials are porous and calcareous; rain impregnated with sulphurous, hydrochloric, and other acids is the chief agent of disintegration in limestones and dolomites. He maintains that silicious sandstones are the proper building stones for wet and smoky climates. Rondelet—totally ignoring the fact that in architecture people prefer to spend as little money as possible upon anything except external show—advises, under similar circumstances, the use of scintillant or ignescent stones; those which emit sparks of fire when struck with steel, because they do not effervesce on the application of the principal acids; and some resist fire. Obviously, if it were possible to obtain it in sufficient abundance, that magnificent substance called *meulière*, found in the neighbourhood of Paris, and used in the construction of cesspools and retaining walls, would be the best material for a London façade. But calcareous stone is that which is the most abundantly found upon the surface of the globe. It is homogeneous, easily quarried and wrought, and it adheres to mortar. It is perfectly well known that under certain acids, even vegetable acids, it effervesces and disintegrates; and that under the action of fire it is converted into quick lime and carbonic acid. It has also been observed that a species of spider, microscopic in size, is a fertile agent of destruction, more particularly in Paris, of calcareous stone. A sort of black-looking veneer resembling grease spots appears upon the face of the stone, especially in façades with a northern aspect. In the middle of each spot is an infinitesimally small hole which contains a swarm of insects (*aranea senoculata*). These insects spin their webs in the almost imperceptible cavities which abound in limestones; dust rests upon them, and moisture of all kinds is thus attracted, and this, with the incessant labours of the insects themselves, is one of the causes of deterioration. Even in parts of France where the atmosphere is comparatively pure, and where wood only is used as fuel, the *calcaire grossier* often and early exhibits signs of decay. In France as well as in England this decay is most apparent on the southern, south-western, and western fronts, arising from the prevalence of winds and rains from those points, and from the fact that the rays of the sun do not fall upon them until it is approaching the horizon, and its force is spent. But paints and silicates abound, and these require only scientific application to be really beneficial and even artistic. Instead of discarding limestones for building because there is a certain natural poison somewhere which is fatal to them, would it not be more worthy of the English character to search for the antidote which Nature has inevitably provided? Or perhaps it would be better to enquire whether carelessness and want of knowledge have not hitherto rendered men unable to make profitable use of the most bountiful of natural building productions.

We have still to allude to an important fact connected with stone of nearly all kinds. A natural action takes place in the majority of limestones immediately upon their extraction from the quarry and exposure to the air. This action, which in most cases is vital in its effects and certain in its results if properly encouraged, is not ignored by architects and builders; but during a long course of years the ingenuity of "progress" has successfully counteracted it. The force



of French example—at all times the best and the worst in art matters—has influenced the English, and we now see in this country new buildings undergoing the operation of a *ravalement sur place* in complete disregard of ancient and mediæval experience, and in suicidal defiance of natural laws.

All calcareous stones originally contain a certain quantity of water which is known as quarry-water or *eau-de-carrière*. The half-hard and soft stones harden after their extraction, and certain *liais*, some of which are only a step removed from soft stone, are known to have acquired upon their surfaces a crust or covering almost impossible to penetrate with the chisel; while at a depth of half a centimètre the stone could be scratched with the thumb nail. This is the result of evaporation, under solar influence, of the quarry water. This water comes to the surface of the stone, bringing with it a certain quantity of dissolved carbonate of lime which crystallises and forms a crust upon it—a crust, which once removed (as is now daily done in the streets of Paris and London), will never reappear. Only the calcareous stones known as *pierres froides*, like the Château Landon for instance, can be worked with impunity at any length of time after their extraction. It is twice as easy to work stone with the quarry water within it as it is when the water has evaporated; but this is only possible in certain climates and seasons. Water freezing within the pores of a stone must exercise a disintegrating action; and this action means complete destruction to the *liais* and *pierre tendre* brought to the surface in winter and exposed to the influence of frost. We have seen an acre of the *banc royal* of Conflans Ste. Honorine reduced to fragments and dust in one night; yet this same stone, extracted in the spring and wrought soon after extraction, will acquire a firm crust before the beginning of winter; and then resist the severest weather. If, however, the blocks be not used immediately, if a whole summer pass—during which of course the natural action of the quarry-water will have ensued though it may not have completely terminated—and the blocks be then sawn and wrought, the stone will be comparatively dangerous to employ in an atmosphere largely charged with acids. To work stone which has thrown its quarry-water (*jetée son eau-de-carrière*) is to take off the crust which is its natural protector against inclemencies of climate; and even in a pure atmosphere and under a hot sun, nature has shown that she cannot be thus trifled with with impunity. Silicatisation does something towards protecting the face of stones deprived of their natural covering; and when it is absolutely necessary to scrape or clean a stone front, silicates should be always immediately applied to the surfaces disturbed.—*Architect.*

## THE EARLY RACES OF MANKIND IN IRELAND.\*

(Continued from page 259.)

THE manners and customs of the people possessed a good deal that was common to all; and, yet, in different districts, there were very marked contrasts.

If we look to their houses, for example, we find that the English settlers imitated the English style; the majority were two stories high, covered with slates, and possessing windows with wooden sashes. In the Scotch districts, the houses were only one story in height; they were covered with thatch, and their windows were often diamond panes fixed in lead. In the Irish districts the humble cabin was of frequent occurrence; and yet it was a marked improvement on the previous class of habitation. So recently as 1655, when Dr. Petty was making the Down Survey he found in numerous places no habitations but *creachts*—viz., dwellings constructed of posts and wattles, or with the

side-walls and gables consisting of coarse basket-work, the whole of which could be taken up and fixed at a new site. The proprietors of large tracts of land almost invariably called their houses “castles,” because they were meant in part as places of defence; and hence the English terms, such as Hall, Manor, Lodge, &c., are of comparatively rare occurrence. Some of these “castles” were of flimsy structure and brief duration. Belfast Castle is a thing of the past. The Castle Gardens at Lisburn still remain; and the old Castle at Hillsborough, which was not intended as a place of residence, remains. But Moira Castle, which was covered with boards, has long disappeared, and the ruins are less than one would expect to find on the removal of a large farm-house. The Castle of the Earls Conway, at Portmore, near Lough Neagh, was one of unusual magnificence, the stables of which afforded accommodation for two troops of horse, indeed were a sort of cavalry barrack. It is said that they were 140 feet long, 30 broad, and 40 high, and that water was supplied by pumps to a series of marble cisterns. Here, also, was the favourite resort of Bishop Jeremy Taylor, and here he wrote some of those well-known treatises which taught mankind both how to live and how to die. The building was erected about 1664, and existed till about 1761; that is to say, it existed for a century, and has been deserted for only a century; yet it would probably be easier to define the limits of Nineveh or Babylon than to trace the outlines of the Castle of Portmore. The interior of the houses presented a contrast as marked as the exterior. The English settlers spoke of a beaufat, a wardrobe, a coffer, and a drawingroom, words which were like Greek and Hebrew to the Scotch, and which would have been still more mysterious to the inhabitant of a cabin or a *creacht*. In their cultivation, the English favoured the apple and the elm, and occasionally the besom-shaped willows or lime trees were seen till lately, such as one sees frequently in England along river margins. There were trees at every entrance to the English town of Lisburn, trees in the triangles where bye-roads branch off, as at Hillsborough, and trees in the streets of towns, as in Moira and Lurgan. Coming, as most of Sir Fulke Conway's people did, from the apple districts of England, on the banks of the Severn and the Avon, they cultivated fruits generally, and this was noticed at Carrickfergus in 1635 by Sir William Brereton, only about twenty years after a settlement had been effected. And yet twenty years after this date nothing but *creachts* were found in the parish of Dromore. The line of the English settlers is the line of orchards in the North of Ireland to this hour; and if the people and their name were blotted out, their history would be partially written in the trees which they planted. This fact actually occurred at Araucania, in Southern Chili. The Indians cut off the Spanish people; and to this hour orchards, sometimes several square miles in extent, attest the former presence of skilful gardeners.

The Scotch cultivated the ash and the fir, but in general their holdings were small. Fruit-trees were unknown among them, and the garden was despised; but they raised grain crops, and had a few cattle.

The Irish, till lately, were bad cultivators, and delighted to till small patches of ground. They had traditions of ploughing by the tail, and burning the corn from the straw, but these practices had been forbidden by Acts of Parliament. And they verified the saying attributed to Fynes Morrison, that “the meere Irish never planted an orchard.”

As a matter of course, the food and beverages differed. In the houses of the English settlers, the father made cider, and the mother compounded mead; the Scotch spoke of broth and brose, and indulged in porridge and oat-cake; while the Irish adhered to the potato, with such slender relish as they could afford.

Though the people apparently speak the same language, one of the most obvious and

striking proofs of their three-fold origin is derivable from this source.

So late as 1820, or say half a century ago, the Irish language was spoken, along with English, from Ballynahinch to near Newry and Newcastle, in Down; and from Ballycastle, by Cushendall, to near Glenarm, in Antrim. An intermediate period occurred, and thirty years later nothing but popular Irish expressions were known, while the number who employed them was greatly reduced. To-day there is little to be found of it beyond single words, and a strongly marked Hibernic pronunciation or “brogue.”

Again, so late as 1820, broad Scotch was spoken all round the coast, from Portaferry to Holywood, and in Antrim from Carrickfergus to Larne, as well as from the Causeway to the Bann. It might also be traced as far inland as Hillsborough and Dromore in Down, and Ballymena in Antrim. The poems of Burns, Ferguson, and Allan Ramsey were read at the fireside, and repeated at the plough and loom, and every rustic poet lisped in Scottish numbers, and imitated the rhyme to which Burns was partial—the stanza in six lines, four of which rhymed. As he could Scotticise his language much or little, he felt that he possessed a greater power of rhyming than if he wrote in pure English. Thirty years later the area of broad Scotch had become greatly narrowed, and it had ceased to be customary to use Scotch when imitating the language of an aged person. To-day, the dialect as such has almost disappeared, and we seldom hear such words as *braw* for brave, *stane* for stone, *nicht* for night; but there are many hundreds of words which belong exclusively to Scotland and to some of the northern parts of England in daily use. There are numerous parishes in the County of Antrim where the poems of Burns are decidedly better understood and more relished than they are among the educated middle class of the City of Edinburgh. In one respect this does not surprise us, as there are hundreds of the educated middle class in Dublin who would have difficulty in understanding, and little pleasure in reading, Carleton's “Traits and Stories of the Irish Peasantry.”

Further, so late as 1820 the tradition lingered among the people that the English language was no where better spoken than near Lisburn; and it was hard to doubt the statement when made by people who could name their ancestral parish in England, tell what offices their fathers held under the Lords Conway, and point to articles of furniture like household gods, that had been brought with them in their wanderings. But the statement was a tradition only; for the effluxion of time had washed away the actual facts on which it was founded. It is quite true that the English language as imported into Ireland was, and in fact is, that of Elizabeth and James I.; that Shakspearian expressions were heard in the kitchen, over the labourer's spade, and by the carpenter's bench; and that while a squire or graduate of a university in England required a glossary of about 2,000 words to explain his favourite Shakspeare, an Irish rustic of English blood could read the book from titlepage to finis, almost without the necessity for asking a question. In the busy world fashions change rapidly, whether in dress, language, manners, or anything else; it is in out-of-the-way places that they linger. So that the obsolete language of England was only obsolescent in the recollection of many of ourselves, and on the banks of the Lagan and Baun, or of Lough Neagh, is not yet obsolete.

Thus while the dialect of the two counties possesses a certain amount of uniformity it comprehends several well-defined varieties. The mode of speech which was common in the rural districts round Belfast in 1830, was illustrated about thirty years later, in three annual publications, known as “Billy M'Cart's Ollminick for the Town o' Bilfawst, wrote down, prented, an' put out, jist the way the people spakes.”

Nor should we omit the interesting subject

\* By Sir William R. Wilde, M.R.I.A. Delivered before the British Association at Belfast.



of traditional ballad poetry. The accomplished Bishop Percy spent his latest years among us, and the generation who knew him personally has not long passed away. But before the celebrated manuscript (which, by-the-way, has lately been published) had come into his hands, and before he had issued his "Reliques of Ancient English Poetry," several of the best pieces which his book contains were well known in these parts by popular recitation. Those known as "Lord Willoughby" and "Sir Hugh of Lincoln" were great favourites of my own in childhood's days, almost a quarter of a century before I saw either of them in print. The same remarks apply to Scott's "Mistress of the Scottish Borders." Many of the ballads which he picked up might have been found in at least equal purity here; and I need only mention "Chevy Chase," "Sir James the Ross," "Young Johnstone," "Lady Margaret," and "Johnnie Armstrong," as well-known examples.

The last illustration which I shall notice is one of the most important—viz., that derivable from creed. Some of the others were written in fading characters, and have become already dim. This characteristic is more deeply engraved, and, therefore, is more permanent.

On three occasions—viz., in 1834, and again in 1861 and 1871—we have had a census according to religious profession, and, from actual figures, the percentages are easily derived. The return for 1871 is not yet complete, but the facts which are furnished by the other two are important.

As a general rule, not only in these two counties, but throughout the whole country, the descendants of the English settlers are Protestant Episcopalians; those of Scottish origin are Presbyterians; and the native Irish are Roman Catholics. Now, in 1861 the highest Roman Catholic numbers—viz., 98 to 97 per cent.—were found in Clare, Galway, Mayo, and Kerry, four shires on the margin of the Atlantic, in two of which the Irish language still maintains its firmest hold. The Protestant Episcopalians reached their highest numbers—viz., 38½ to 25—in Fermanagh, Dublin suburbs, Armagh, and Belfast—the very spots where we should expect to find them; while the Presbyterians, who are more concentrated than either of the others, reached their highest numbers—viz., 59 to 35—in Carrickfergus and in the Counties of Antrim, Down and Londonderry.

But a marked peculiarity is the extraordinary way in which the people hold together; so that the three streams flow side by side for generations and centuries without commingling, adhering to their respective localities with a tenacity which statute law would be powerless to enforce. Hence, it is rare to find the three elements in nearly equal numbers, or varying from 30 to 40 per cent. of the whole; the rule is that some one of the three possesses a clear majority of the population, say from 52 to 85 per cent. This is the case first in reference to counties, or the county districts of the census; it applies also to baronies and parishes, and especially to townlands. In some of these last, a few years ago, and perhaps down to the present hour, every householder professed the same creed.

In 1834, the fourteen baronies of Antrim were classed as follows:—There were a majority of Roman Catholics in 3, of Presbyterians in 9, of Protestant Episcopalians in 1, and of Mixed Protestants in only 1. There were ten baronies in Down, of which four were Roman Catholic, 4 Presbyterian, and 2 Mixed Protestant; so that out of the 24 great divisions, so many as 21, or 87 per cent. showed a majority professing some one of the three leading creeds.

In 1861 there were 64 out of the 80 baronies in all Ulster, or exactly four-fifths, that showed such a majority; and in only one-fifth was a majority of Protestants found by the union of the English and Scottish elements. And, in the whole of Ulster, there were 875 districts whose population was

returned separately, of which the following is the analysis:—With more than 51 per cent. of Protestant Episcopalians, 71; Presbyterians, 186; Roman Catholics, 425; total, 682, or 78 per cent.

In the whole of Ireland there were 4,399 such districts, or 86 per cent. of the whole.

I will give you only one instance more. The County of Down was the largest of the 44 county districts of 1861, both in area and population. It had 188 places separately enumerated, of which 17 contained a majority of Protestant Episcopalians, 62 of Presbyterians, and 50 of Roman Catholics, making 129, or 81 per cent. Even here, where one would have thought that the elements were thoroughly mixed, there were only 29 districts, or 19 per cent., in which Protestants of various denominations united, and thus outnumbered Roman Catholics.

Facts of these kinds tell their own tale; and if it be said that this variety of population is our weakness, by perpetuating national prejudices and party animosities, and giving rise to occasional popular collisions, we reply that it is also our strength. There is Earl Crawford's "Progression by Antagonism;" each looking at his own half of a truth, and pushing it into prominence; there is the natural rivalry and competition, not of individuals merely, but of large associations of men; and as each pushes its own good qualities to the front, we find numerous illustrations of Darwinism in improvement of the race by "natural selection." And when we look at the moral condition, the accumulated wealth, and the industrial resources of the whole district, in which this great town sits as queen and representative, it is clear that the combative qualities of the people have been exercised for good, far more than for evil. Indeed, the wonder is that such heterogeneous elements coexist and assimilate so well; but daily friction, like the action of the waves on the stones of the Causeway, has rounded off a great many angles. Long may the town of Belfast and the two counties which hold it in their kindly embrace maintain their present advanced position in that which is beautiful, good, and great; and let us cherish the hope that in 1874, as in 1852, the visit of the British Association may give us a new start in the race of progress and useful development.

#### ON POLISHING AND VARNISHING.

*French Polishing.*—The mode of application necessary for French polish differs from that of ordinary varnishes, being effected by rubbing it with a fine cloth upon the surface of the material to be polished, and using oil and spirits of wine during the process. In applying it to large surfaces, use a rubber formed of flat coil of thick woollen cloth, such as druggut, &c., which may be torn off the piece in order that the surface of the rubber, which is made of the torn edge of the cloth, may be soft and pliant, and not hard and stiff as would be the case were it to be cut off, and therefore be liable to scratch the soft surface of the varnish. This rubber is to be securely bound with thread to prevent it from uncoiling when it is used, and it may vary in its size from one to three inches in diameter, and from one to two inches in thickness, according to the extent of the surface to be varnished. The varnish is to be applied to the middle of the flat face of the rubber by shaking up the bottle containing it against the rubber; it will absorb a considerable quantity, and will continue to supply it equally, and in a due proportion to the surface which is undergoing the process of polishing. The face of the rubber must next be covered by a soft linen cloth doubled, the remainder of the cloth being gathered together at the back of the rubber to form a handle to hold it by, and the face of the cloth must be moistened with a little raw linseed-oil applied upon the finger to the middle of it, and the operation be commenced

by quickly and lightly rubbing the surface of the article to be polished in a constant succession of small circular strokes, and the operation must be confined to a space of not more than twelve inches square until such space is finished, when any adjoining one may be commenced and united with the first, and so on until the whole surface is covered. The varnish is enclosed by the double fold of the cloth, which, by absorption, becomes merely moistened with it, and the rubbing of each piece must be continued until it becomes nearly dry. The rubber may, for a second coat, be wetted with the varnish without the oil, and applied as before. A third coat may also be given in the same manner; then a fourth with a little oil, which must be followed as before, with two others without oil; and thus proceeding until the varnish has acquired some thickness, which will be after a few repetitions, and depends upon the care that has been taken on finishing the surface. Then a little spirit of wine may be applied to the inside of the rubber after wetting it with the varnish and being covered with the linen as before. It must be very quickly and uniformly rubbed over every part of the surface, which will tend to make it even, and very much conduce to its polish. The cloth must next be wetted with a little spirit of wine and oil without varnish, and the surface being rubbed over, with the precautions last mentioned, until it is nearly dry, the effect of the operation will be seen, and if it be found that it is not complete the process must be continued, with the introduction of spirits of wine in its turn as directed, until the surface becomes uniformly smooth and beautifully polished. The work to be polished should be placed opposite the light in order that the effect of the polishing may be better seen. In this manner a surface, from one to eight feet square, may be polished, and the process, instead of being limited to the polishing of rich cabinets or other smaller works, can now be applied to tables and other large pieces of furniture, with very great advantages over the common method of polishing with wax, oils, &c. In some cases it is considered preferable to rub the wood over with a little oil applied on a linen cloth before beginning to polish, but the propriety of this method is very much doubted. When the colour of the wood to be polished is dark, a harder polish may be made by making the composition of one part of shellac and eight parts of wine, and then proceed as before directed. For work polished by the French polish, the recesses of carved work, or where the surfaces are not liable to wear or are difficult to be got at with the rubber, a spirit made without lac, and considerably thicker than that used in the foregoing process may be applied to those parts with a brush or hair-pencil, as is commonly done in other modes of varnishing. French polish is not proper for dining-tables, nor for anything where it is liable to be partially exposed to a considerable heat.

*Stopping for French Polish.*—Plaster of Paris, when made into a creamy paste with water, proves a most valuable pore-filling material. It is to be rubbed by means of a coarse rag across the woody fibre into the holes and pores till they are completely saturated, and then the superfluous stucco on the outside is to be instantly wiped off. The succeeding processes are technically termed papering, oiling, and embodying.

When finely-pounded whiting is slaked with painter's drying oil, it constitutes another good pore-filler. It is applied in the same manner as the preceding one, and is recommended on account of its quickly hardening and tenacious virtues as a cement; sometimes white-lead is used in lieu of the whiting.

Before using either of these, or other compositions for the same purpose, it is best to tint them to correspond exactly with the colour of the article it is intended to size.

Holes and crevices may be well filled up with a cement which is made by melting



beeswax in combination with resin and shellac.

**Varnishing.**—Flat camel's-hair or hog-hair brushes are generally used for varnishing, and vary in width to four inches broad and upwards. Turned and carved work require small tools to go over the members and sweeps. The best way to preserve them is to rinse them after use in finishing spirit, and hang them up in a dry place where no air is moving.

Where the brushes have been neglected they must be soaked in varnish for an hour or two, but, if wanted immediately, they can be softened in lukewarm methylated finish. For fancy work a good sponge will sometimes be found preferable.

The varnish dish should be provided with a closely-fitting lid, and a wire strained across the dish to scrape the brush over when dipped, or too much will be laid on.

After dipping, the brush should be passed over the wire, and the first coat may be laid on across the grain of the wood as evenly as possible, but in the finishing the varnish must be laid on with the grain. The tool should be lightly handled and not slowly used, as some varnishes set very quickly. Varnishers sometimes make a ground with a rubber full of French polish before the application of spirit varnish. The rubber must be thoroughly dry before the application of the varnish. The last coat applied should stand some time before receiving the fine varnish. It should be finished off with a damp rubber. The above will give a brilliant and lasting work.

**Choice of Hair Tools.**—Round and flat brushes are used, but the flat are more useful. They should be neatly made and yet very strong, and the hair should not be cut at the points, but smooth to the touch. They should also be very elastic, springing back to their shape when in use, and the hair should be silky-looking. There should be no diverging hairs, but their shape should be wedge-like. Polished cedar handles ensure thorough cleaning, and they are more pleasant to use.

Sable tools should come to a firm fine point, and the hair must be of a pale yellow cast. They can be had both flat and round.

Badger tools are superior when the hair is light long and pliant, in colour black with white ends. Instead of coming to a point, the hairs diverge. They seldom want cleaning, as used by gilders.

## THE CITY LIGHTING.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—The report by the Inspector of Public Lighting of the City of Glasgow, for the year ending 28th May, 1874, shews that 7,836 public lamps are used in that city; that they burn 3,711 hours per annum, consuming 37,345,149 cubic feet of gas at 4s. 7d. per 1,000, amounting to £8,558 5s. 3d.—about £1 1s. 10d. for each lamp.

A Dublin ratepayer wishing to learn the cost of the public lighting for the year ending August, 1873, after wading through the purposely mystified accounts of the Corporation, might be astonished to find that he could *only* learn how much of the bulk sum was paid to the Gas Company for gas burnt in the city lamps during the year ending August, 1873, and that if he requires to know the total cost of the gas consumed during that year he must wait until 1875 to obtain the information. Again, if he wishes for particulars similar to those given in the Glasgow report, he must go back to the accounts for the year ending August, 1871, where he will find that the bulk sum paid for gas, at 3s. 11d. per 1,000, was £6,235 15s., burnt in 3,270 public lamps, lighted about 3,600 hours; and can it be a matter of surprise if, on comparing the cost of our public lights in that year with that of the cost in Glasgow in the past one, he would deny that such a sum of money was ever paid by the Corporation for the gas *actually* used? Again, he will find that the sum charged for gas has been increased every year since, and when he remembers that the *gratis* burners have been used in the metered lamps since February last, he may speculate on the public lighting for 1873-4 costing about £3 per lamp, at least.

In the report of the directors of the Gas Company for the past half-year, the assistance given them by the Corporation in having their last Gas Bill passed

is most favourably noticed; and it is also stated therein that, though the losses of the company during the former half-year amounted to £9,424 16s. 4d., their losses for the present half-year only amount to £706 5s. 6d. How far the use of the *gratis* burners on the public metered lamps may have contributed to bring about these results, or to what extent a change may be effected in the latter set of figures when the matter is inquired into, remain to be seen.

About three months ago, while walking at night through the city with two English friends well acquainted with the ins and outs of gas engineering, our conversation turned on the wretched lighting and the inequalities of it. They expressed an opinion that it was highly calculated to cause visitors to form a very low idea of the commercial intelligence of the people of Dublin. I fear I did not improve their estimate of our public spirit when I informed them, *by way of excuse*, that it was generally believed that the majority of the members of the corporation were large shareholders in the Gas Company, and that they, utterly disregarding the remonstrance of, and made through the public Press, had appointed as inspector of the public lighting, the brother of the secretary and general manager of the Gas Company, and that possibly the lighting would be accounted for in some way at some future date.—Yours, &c.,

JAMES KIRBY.

41 Cuffe-street, 30th Sept., 1874.

## ORGAN BUILDING IN DUBLIN.

WE understand that Messrs. Brown and Son, of Camden-street, have supplied an organ for the neat and picturesque Gothic church on the North Strand, and that it will be opened on next Sunday by Mr. John Horan. The instrument is enclosed in a handsome Gothic case, in harmony with the fittings of church. The case is of pine, finished with Swinburn's stains and varnish. The organ consists of two complete manuals (CC to G), and has a full compass of pedals. The stops are as follows:—Swell: open diapason (8 ft.), dulciana, principal (4 ft.), twelfth, fifteenth, and oboe (8 ft.). Choir: gamba (8 ft.), stopped diapason (8 ft.), and flute harmonique (4 ft.). Couplers: choir to swell, and swell to pedals. The pedal-organ has a bourdon stop. All the stops possess much sweetness of tone, and the full organ is rich and has considerable power. The front pipes are decorated in colors; this part was the work of Mr. J. Brown, jun., and does him credit. It gives us pleasure to note another example of what can be done in our city.

## NOTES OF WORKS.

A gate lodge and entrance at Swift's Heath, Ballyragget, Co. Kilkenny, for R. W. Swift, Esq. Mr. Joseph Maguire, architect, Great Brunswick-street. Mr. Meehan, Kilkenny, is the contractor.

A gate lodge and entrance at St. Catherine's Park, Ballyboden, Co. Dublin, for William Russell, Esq., J.P. Mr. Joseph Maguire, architect. Mr. Fegan, Rathgar, contractor.

The ironwork of the above will be supplied by Messrs. Kennan Fishamble-street.

A new wholesale warehouse and cabinet factory has been commenced in Great George's-street, Cork, for Mr. John Daly, from designs by Mr. Robert Walker.

The works at the new R. C. Cathedral, Queenstown, are progressing satisfactorily under the superintendence of Mr. C. G. Doran, clerk of the works. Mr. George C. Ashlin is the architect.

## THE NEW SANITARY AUTHORITIES.

"It is not at all improbable (says the *Medical Press and Circular*) that many boards of guardians—newly-dubbed 'Rural Sanitary Authorities'—will be hostile to any sanitary improvements (many of their members being themselves proprietors of dunghoops and cesspools which would need reform), and, as they are compelled to appoint a sanitary staff, will endeavour to defeat the attempt at cleanliness by voting farcical salaries for their health officers. It is no secret that the Dublin Corporation are in this position, and it is anticipated that they will attempt to snub the Metropolitan dispensary medical officers (who have bored them with reports of fever nests and other insanitary

developments), by fixing their salaries at £5 a piece, or such sum as will effectually prevent their performing any efficient duty as medical officers of health. In view of this probability, we are gratified to observe that the Local Government Board are conscious of their power over obstructive guardians and corporations, and will be prepared to put on the screw when the public interest requires it. As far as the Dublin Corporation is concerned, a dire experience enables us to anticipate the course of events. No doubt every poor relation of a corporation who—by any stretch of imagination—can be conceived qualified for appointment, will be a candidate for some of the 'little pickings' in course of distribution. The religious screw and the personal whip will be in full exercise, and in the event we shall no doubt see many of the public health offices filled by men whose only mark is their curious incompetency for their duties."

## SANITARY AND OTHER NOTES.

THE sanitary condition of the city is not improving, but scarlet fever and other zymotic diseases are advancing at a quick pace. The four last months have been wasted with wrangling and reporting upon Liffey purification schemes, and we fail to see in the last report *re* the purification of the Liffey the remotely hoped for. All the plans, the Commissioners' included, might be put in the one bag, and there would on the whole be little difference in whichever was drawn, so far as the public health is concerned. What shape sanitary matters will take with us in this neglected city under the new Health Act, is almost impossible to augur. What shape it ought to take we know, but in knowing this there is little consolation afforded when we consider the composition of the working machinery of the acts. We are, however, on the look-out, but we must confess it is a very bleak sanitary outlook.

**DROGHEDA.**—At a meeting of the Corporation a "sealed order" was received from the Local Government Board, fixing the 5th of October as the date of the first sanitary meeting under the new act. Mr. May hoped by that date the town would be cleansed; and special instructions were issued to the Town Inspector (Mr. J. J. F. Greene) to have the various pumps in working order. Mr. Downes suggested that in those pumps where the supply of water was condemned as unfit for human use, the supply should be stopped until put in order, when Mr. Greene promised to have all cleansed by the date of first meeting. A deputation of the Memorial Drinking Fountain Committee waited on the Corporation, asking a site for the proposed fountain, and a long and animated discussion arose, when finally, on the casting vote of the mayor—there being eight votes on either side—it was carried that two sites only should be offered for choice to the deputation—viz., at Dublin Gate, where Professor Cameron's analysis showed there was already the best water in the town; or opposite the entrance to St. Peter's Protestant Church.

**KINGSTOWN.**—At a late meeting of the Commissioners, a letter was received from the Local Government Board enclosing copy of instructions to the Commissioners for carrying out the provisions of the Public Health Act. A communication was received from the Blackrock Commissioners in answer to a bill filed in Chancery, charging them with causing a nuisance at Monkstown by the pollution of the Stradbrogue river. The answer repudiated the charge *in toto*, and placed the onus on Kingstown. After some conversation, Alderman O'Rorke undertook to confer with Mr. Vance, chairman of Blackrock Board, with a view to an amicable arrangement.

**QUEENSTOWN.**—The commissioners, being the sanitary authorities in this town under the new act, have held their first meeting as such. One member, Mr. Cummins, represented the importance of raising money with the view of building labourers' cottages. There was a strong feeling to do away with the disgraceful hovels existing in the Holy Ground. The first object that met the view of every American on coming into this port was the row of wretched hovels at the east end of the town, which were not creditable to any community. It appeared to him that under the new act they had power to deal in a determined manner with the owner of the property. They should either compel the landlords to put the houses in a habitable and presentable state, or borrow money, purchase the ground, and build cottages for the poorer classes. Mr. Farrell said he had heard that the trustees of the property were more than anxious to sell it. Mr. Fitzgerald and the other members of the Board concurred in the importance of the suggestions made by Mr. Cummins, and it was agreed to appoint a committee, consisting of Messrs. Fitzgerald, Cummins, and Farrell, to have an interview with the owners of the property.



**MOUNTMELLICK.**—At a meeting of the Guardians, the subject of the work executed at Kilmannon Graveyard was discussed, arising from a letter from a ratepayer to the Poor Law Commissioners, complaining of the sum paid or rather over-paid for the work executed. The clerk said that unless there was an action against the clerk of works there was no action against the contractor. The board directed the clerk to reply that they regretted the contractor was paid on the certificate of the clerk of works, and that on investigation it was found that the work was not inspected in due time, and for which reason he was dismissed; but the guardians could not see who they can look to for redress under the circumstances.

In "Limerick the Beautiful," the Town Council have had under discussion the disgraceful condition of the streets and City Hall. A member pointed out that a portion of Denmark-street was converted into a fish, vegetable, and fruit market; that the language of the parties congregating there was most obscene and disgraceful. Alderman Carte said the manner in which the streets were obstructed was creditable to their city. The Mayor said that when strangers visiting Limerick requested to be shewn the town hall, he blushed, and invariably told them that the *keeper was out*, and had taken away the keys!! The T. I. and S. O. were ordered to give their immediate attention to the matters complained of.

The Corporation of Clonmel have resolved upon applying for a special act of Parliament, with the view of providing suitable market accommodation and otherwise improving their town. The provisions of the Local Government Act should in their case confer ample powers, without the expense of a special act.

## THE OPERATION OF THE IRISH HEALTH ACT.

ALTHOUGH we have already given a digest of the Irish Public Health Act, and will have occasion from time to time to direct attention to its provisions, it will not be amiss to publish the following order of the Local Government Board of Ireland relating to urban and rural sanitary districts:—

Whereas by the Public Health (Ireland) Act, 1874, a certain defined part of each of the said unions has been constituted a rural sanitary district, and the guardians of the union are, as such, declared to be the rural sanitary authority for the said rural sanitary district, the other part or parts of the said union having been declared by the said Act to constitute some urban sanitary district or districts. And whereas by the tenth section of the said Act it is enacted that every medical officer of a dispensary district shall be a sanitary officer for such district, or for such part thereof as he shall personally be in charge of, and that every sanitary authority shall appoint in addition such other sanitary officers as the Local Government Board shall in each case direct: Now we, the Local Government Board for Ireland, do, in the case of each union in the schedule named, but in respect of such part only thereof as does not consist of some urban sanitary district, direct the guardians to appoint so many sanitary sub-officers as the guardians shall with our consent determine; and we do hereby direct and declare that the relieving officers and the collectors of poor rates shall be alike eligible for the office of sanitary sub-officer for such part of the union as aforesaid. And we do hereby further direct that the guardians of the union shall appoint one consulting sanitary officer, and that for this office every medical officer of the union, including the workhouse medical officer or officers, shall be eligible, and also, subject to our approval, any other medical practitioner having the same qualifications; and shall also appoint an executive sanitary officer, for which office the clerk of the union, or any assistant of the clerk appointed by the guardians, shall be eligible. And whereas by the said tenth section it is further provided that the Local Government Board shall assign to the dispensary medical officers, and to the other sanitary officers, their respective duties and functions in the discovery or inspection or removal of nuisances, in the supply of pure water, in the making or repairing of sewers and drains, or in generally superintending the execution of the sanitary laws within the district. Now, therefore, we the Local Government Board, do hereby assign to the sanitary officers and other officers to be appointed under this order their respective duties and functions as follows:—

### I. INSPECTORIAL DUTIES.

1. Every sanitary sub-officer who shall observe or be informed of any matter demanding, in his

opinion, attention from the sanitary officer of the dispensary district in which he has discovered the same, shall notify it forthwith to the sanitary officer in writing, specifying the nature of the case, in the form (a) in the schedule B to this order annexed, and shall preserve a copy thereof in duplicate.

2. Every sanitary officer who shall have been apprised officially or shall otherwise become cognizant of any matter demanding his attention as aforesaid, shall, as soon as conveniently may be, visit the locality, and if, after due inspection, he finds such matter dangerous to public health, he shall report thereon to the board of guardians, in the form (b) in the said schedule B, showing the source from which he received the information, and the date thereof, and the date of his visit of inspection; he shall also give a sufficient description of the nature of the case, and the remedy which he recommends to be adopted, and shall preserve a duplicate of every such report.

### II. EXECUTIVE DUTIES.

1. The duty of the executive sanitary officer shall be to attend every meeting of the guardians acting as a sanitary authority, and to take their directions from time to time on the sanitary business of the board, and on the reports of the sanitary officers, and all proceedings arising thereon, and to see that the same are carried out and brought to a conclusion where practicable, in pursuance of the orders of the board.

2. In furtherance whereof we do hereby direct that every sanitary officer and sub-officer shall, on receiving directions from the executive sanitary officer, attend and assist in all proceedings in which his attendance or assistance may be required.

3. The duty of the consulting sanitary officer shall be to attend meetings of the guardians acting as sanitary authority, whenever required to do so, and to advise them on all matters and proceedings requiring medical knowledge and advice in the administration of the sanitary laws.

4. The proceedings of the board of guardians acting as the sanitary authority shall be recorded in the same manner as the minutes of the proceedings of the board under the Poor Law and Medical Charities Acts, and a copy of such record shall be annexed to the ordinary minutes of proceedings of the board of guardians, and shall be transmitted to the Local Government Board by the clerk of the union with such last-mentioned minutes.

### III. STATISTICS OF DISEASE.

It shall be the duty of the consulting sanitary officer and of the sanitary officers to furnish from time to time to the Local Government Board such statistical returns of sickness and in disease in the workhouse and its hospitals, and the dispensary districts, as shall from time to time be required from them respectively.

### IV. FIRST MEETING.

The first meeting of the rural sanitary authority in each case shall be on the day of the second week of meeting of the board of guardians after the receipt by them of this order.

By command of the Lord Justices,  
T. H. BURKE.

## TENDERS.

For erecting Temperance House and Hall at No. 6 Townsend-street, Dublin, for the Dublin Total Abstinence Society. Mr. Frederick Morley, A.R.I.B.A., architect. Quantities supplied by Mr. Frederick Morley:—

|                   |         |        |
|-------------------|---------|--------|
| Messrs. Beckett   | .. .. . | £2,140 |
| T. Pemberton      | .. .. . | 1,924  |
| S. Robinson       | .. .. . | 1,909  |
| Cormack           | .. .. . | 1,900  |
| Jackson           | .. .. . | 1,780  |
| Fagan             | .. .. . | 1,700  |
| Tyrril (accepted) | .. .. . | 1,400  |

## TO CORRESPONDENTS.

**CONCRETE BUILDING.**—"A House Owner" enquires whether there is any person who undertakes work of this nature in Dublin. We do not know of any builder who makes it peculiarly his speciality; but if the work needed be considerable, any respectable builder, we opine, would undertake to carry it out. If "A House Owner" sends us his name and address we will refer him to parties who will meet his wants and afford him more information upon the matter.

**"GREY ABBEY."**—Mr. Phillips's work, of which a notice appears in this issue, can be had of the author at 6 Castleton-street, Belfast; or of W. H. Greer, bookseller, of High-street, in the same town.

**A CITIZEN.**—The Government Auditor's surcharges can be seen in the published balance-sheet of the income and expenditure. This document needs an analysis, and perhaps we will give it one, for the public edification. Some of the items evidence an amount of corporate and official assurance unexampled in the history of local misrule.

**SANITARY INSPECTOR.**—Do what the dispensary medical officer tells you, but take a note of your objections for your own safety and satisfaction hereafter.

**ARCHITECT'S ASSISTANT.**—A description of the building will be inserted if forwarded *minus* of all personal eulogy; the latter should be left to the penny-a-liners of the daily press.

**A RATEPAYER.**—The oily addresses will soon be making their appearance, and the equally oily paragraphs in the morning journals in favour of their mutual friends. Next month, if there be any public spirit left in the city, the first real blow should be struck in reforming the "Reformed Corporation." Present activity on every side is absolutely indispensable. Let the right men be put in the right places, and the systematic jobbers of every creed and class relegated to the unattractive surges of public disgust.

**INQUISITIVE.**—The Main Drainage staff, in the words of the mendicant's refrain, "have got no work to do," and they are being paid remarkably well for doing it.

**A CARPENTER.**—The works of Price and Pain belong to the last century. The first edition of Peter Nicholson's work was also published towards the close of the last century, but improved editions followed, and are still in use.

**K. D. R., Cork.**—We could not find you in your office on our calls during the past week. We had hoped to have personally explained as to why your drawing was not suitable for the photo-lithographic process. Perhaps you might try another in *pen-and-ink only*.

\* Articles on the Gas Question, the Main Drainage, and other important topics, must be held over until our next.

## NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

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# The Irish Builder.

VOL. XVI.—No. 356.

## Social Science.



SINCE our last issue, the Glasgow Congress of the Social Science Association has opened and terminated, after what we consider a successful sitting. It becomes certain sections of the daily political Press to sneer at the efforts of the association, and designate its members a congress of talkers—talkers who talk for the purpose of hearing themselves talk, and ventilating their pet theories. The same might be said of local and legislative bodies. Although the Social Science Association does not make our laws, it has certainly during its existence furnished the materials of most of our recent Acts—not alone those bearing upon Health, but those on Economy, Trade, and other branches. If the Social Science Association performed no further service than what it has achieved by its labours in the domain of Health, it would be entitled to the thanks of the present and future generations. Those whose trade it is to foster and live by warring politics—mere politics, apart from its philosophy or the prime objects of all good government—may sneer as it suits them, but the seed sown by the active members of the Social Science Association has taken, and is still taking, deep root, and the fruits are not absent.

It may be claimed as the province of the British Association for the Advancement of Science that it fulfils its object and mission by its yearly meetings; but no less is it the province, the object, and mission of the Social Science Association to do the same thing, by the spirit of active enquiry it invokes, and the practical embodiment it gives in the persons of several of its members and sympathisers to the views put forth. Were we to enter into detail of the reforms effected by the labours of the Association, we could make a long list. It needs but intelligent thought and common honesty to discern these labours, and acknowledge them; and it needs also that the thinker and observer should have lived for some years, and be no mere fledgeling fresh from the college, pitchforked into an editorial sanctum to dictate public opinion without knowing what should constitute it. All men of rational views may dare to speak, but they should at the same time hold themselves amenable to the ripened public will, begot by experience, and not the abortion of faction.

What were the relations of Capital and Labour a quarter of a century ago, or even much less, in the British Islands? and what, by comparison, are these relations to-day? Strikes are certainly not extinct, and relics of the "rattening" system still survive. There are now no blazing rick-yards, and the terrible lucifer match has no terror for the farmers who use reaping and threshing machines or steam ploughs. Weavers in Coventry or Nottingham, in Dublin or Belfast, do not rise in armed revolt against

appliances that were once considered by them as hell-devised. Workshops are not burnt down and machinery smashed by sawyers and carpenters, and non-union men are not beaten and maimed in the streets for using or assisting in working wood-working machinery. Seldom, indeed, does the Saxon artizan ill-use his Celtic shop-mate, or *vice versa*; and, though the Scot may not be very well beloved by either the Saxon or the Celt, there is a courteous forbearance, and each and all are found working side by side, assisting and assisted by the same machinery that they whilom cursed with all their might as the ruin of their trade. Ruin, forsooth!—why, machinery has made the building operative and the operatives of many other branches gentlemen in position; and, with a little more education on their part, it will lift them still further up in the social scale. So much, then, for the teachings of social science, and the spread of practical and rudimentary knowledge.

Social science has taught and will still teach the workmen of these countries much that is desirable for them to learn. It has taught them the benefits and powers of co-operation—co-operation in their own, their employers', and the public interest. Co-operation has made them masters of their own plant and machinery, and they have begun to realise the responsibilities as well as the advantages of being their own masters—a lesson which they need to learn. Capital is not acquired without care, anxiety, and an outlay of severe mental and bodily labour. There are losses which have to be borne, and all returns of money are not profits.

The educational movement embodied in the new School Board of the sister kingdom is more or less owing to preachings and teachings of the Social Science body, not alone in its elementary, but also in its technical form. We dare to say this, for we know that some of the longest and most active members of the association have been advocates for the technical education of the artizan—men who have never taken the part of the employers as against the workmen, or the workmen against the masters, except on those occasions when one or other party were manifestly in the wrong, and even then they tendered good counsel and amicable relations instead of resistance.

The greatest triumphs, however, of the association have been in the interest of the public health; and its efforts in this direction should not, as it will not be, forgotten. Some of the very men who are participators, from their position, to a great extent in the benefits conferred by social and sanitary reform, endeavour to damn with faint praise the labours of the social reformers. It has always, or nearly always, been thus in the history of the world; and as it is with nations, so it is with individuals—their barbaric days are forgotten; and when they have at last obtained an assured position, or fancy they have obtained it, they look or are prone to look down with derision on the rudimentary ways and means by which they have advanced. Kicking the ladder from under one's-self when the tower has been reached is, however, an unsafe proceeding, particularly on the part of creatures who have no wings, and, even if they had, would scarcely know how to use them.

Public health was a thing worth struggling for, and the battle has been fought earnestly

and well on the part of the social reformers. If not always in the right, they endeavoured to ascertain the truth, and to preach it; and the flash of kindred thoughts from kindred and sympathising minds illumed many a dark subject, and cleared the way for the outcome—public good.

Some modern sage once wrote, that he who could make two blades of grass grow where only one grew before, should be considered a benefactor of his species. How much more are they benefactors of their species and their country, those men who have enabled not only two human beings, but several human beings to live in a given space in health and comfort, where only one has lived before? The saving of even one single life in a community, and protracting it to the allotted span, is of incalculable value when viewed in the light of all the relations which a human being holds to society. But public health embodies individual health, cleanly homes and persons, wholesome food, pure water, strong arms and limbs, a healthy progeny, sobriety, industry, the decrease of pauperism, empty jails, and a happy and contented people. These are the ends for which social and sanitary reformers have struggled; and ends like these will be obtained, if the teachings of social science take root in the British Islands. That such doctrines as these are taking root, there can be no doubt. Success has crowned the efforts of social reformers, and, with the aid of the Elementary Education Act and compulsory sanitary measures, greater social reforms than were ever dreamed of will be achieved. Parliament may and can do much; but it is to meetings like the Social Science Congress, and to that part of the Press that discusses social questions, that the Legislature is indebted for much of the good contained in the laws that are passed.

Many a hint thrown out, suggestion made, and scheme propounded and discussed at Social Science meetings, have been adopted by statesmen and framers of legislative measures, sometimes in part, and not rarely *in globo*. The former may have been changed, but the essential features were retained, and as usual in such cases seldom or ever acknowledged. The President of the Glasgow Congress, the Earl of Rosebery, touched in his opening address upon many important and vital points worthy of consideration, not because of their novelty, but because, if we would be a free, powerful, and a pattern nation or race, we must endeavour to establish those principles he and others in the Congress enunciated. We must not only establish them for the observance of our fellows, but we must act up to them ourselves, no matter in what sphere of life we are placed.

Education and Health are the questions of the day, and with these two powerful levers of modern life and progress, the most demoralised nation that ever licked the dust can be lifted from a reign of eclipse into a reign of light, health, and prosperity.

## THE IRISH HEALTH ACT—THE CENTRAL AND LOCAL SANITARY AUTHORITIES.

"WE shall see what we shall see," is a very safe prophetic utterance. In the case of the Irish Health Act, however, we shall see what others as well as ourselves expected to see. Already, if there be not an open revolt on



the part of certain urban and rural authorities against some of the provisions of the Irish Health Act, there is at least a passive resistance, and a determination to drive a coach-and-six not only through the law, but the "sealed orders" of the Local Government Board. Boards of guardians are not the only malcontents, but we have municipal bodies like the Corporation of Dublin endeavouring to set aside the spirit and substance of the Act, and to frame a new set of regulations for themselves. The administration of sanitary laws heretofore in Dublin, like the administration of other Acts, created a system and an influence, as well as a staff, and with the appointments of course the usual outcome of "pickings." If sanitary officials or inspectors wished to be false to their duties, contractors could make it worth their while shutting their eyes and holding their noses when smells were encountered; and your sanitary inspector—to whom a wink was as good as a nod—could act when he pleased up to the Irish proverb, that "the longest way round is the shortest way home."

The new Act was designed to effect a change. This change was welcome by many, and particularly by the medical interest; but, despite the provisions of the new Act, the new sanitary boards, and particularly the guardians, have it in their power to render the administration of the law a very weak administration indeed. There is, to be sure, a remedy in prospective for this; but it is not with the future but with the present we have now to do.

The new officers of health in the rural union districts, unless they prefer to work for the public good from a noble motive, will most likely have to perform their duties for a miserable pittance. Efficiency cannot be maintained if both medical and non-medical officers are voted abnormally low salaries. The work after the first spell will be neglected, and the last state of the public health administration will be worse than the first. We go in for economy in the conduct of all departments of the State, but not for that cheese-paring economy which will oust from our public bodies competent men, and put in their places a lot of incapables who possess neither the capacity nor the will to do their duty. The majority of local boards, no matter how ignorant may be their members, will know where the shoe pinches them; and representatives, or so-called representatives, will be slow to tax themselves for the medical relief of their poorer brethren. They will take the most narrow view of the public health that is possible to be taken, and, while complying with the law in electing their sanitary officers, they will please themselves in the voting of their salaries.

For several months to come a considerable amount of correspondence will be passing between the central authorities and the local ones. Perversity will be supplemented by contumacy on the part of the latter; and, while a paper warfare is waged, and senseless discussions protracted, epidemic diseases will increase, and a high rate of mortality will continue.

It needs but a glance over the proceedings of the several union boards throughout the kingdom to see how the Irish Health Act is interpreted, and how it is likely to be administered. The South Dublin Union is, perhaps, one of the highest in the scale as to salaries voted under the new Act. The medical officers of health are to be allowed

compensation for the new duties imposed, sums varying from £10 to £30 per annum, according to the nature or extent of their districts. The executive and consulting medical officers' salaries were fixed at £50, and the sanitary sub-officers were appointed at salaries from £35 to £45 each. In some of the provincial towns whose sanitary bodies have arranged the salaries of their medical officers, we find the sums vary greatly. At one important union the sanitary officers are to receive £10 each; the sub-sanitary officers, £15; the executive, £20; and the consulting physician, £15. "Beef to the heels, like a Mullingar heifer," says the old Irish proverb; but in the case quoted which refers to the Mullingar Union there is anything but a display of fat. A northern town, after cutting and pruning down in the most Darby Skinadre fashion, we have the salaries arranged in this fashion: The dispensary officers are fixed at a maximum of £100, with £20 a-year in addition to that sum for performing their new duties in connection with the Act; other necessary officers were appointed at the munificent sums of £10 and £5 each. Other unions have acted much in the same spirit, while a majority of them have postponed the fixing of the salaries for some weeks to come.

A spirit of opposition to the Act is plainly apparent over the country. Although the new boards are assured that half the expenses connected with the Act will be provided for out of the Consolidated Fund, the newly-constituted authorities seem to be fully aware that the charges upon the ratepayers will still be a serious item. If the work of the new Act were efficiently performed, the services would be well worth the cost—and even a greater cost; but who can guarantee or be sanguine that the work will be performed, when we look upon the machinery that is provided?

Apart from the vexed question of remuneration, whatever officers are appointed, and accept their appointment with their eyes open, we say that these officers should do their duties; if not let them resign; and, if incapables should fill their places, the newly-constituted board will not be long in finding out their errors in the increase of expense—not brought about by high salaries, but by other obvious ways. Here in Dublin it appears, as elsewhere in other cities, notwithstanding the passing of the Act, we shall have a system of divided sanitary authority perpetrated, if the Local Government Board do not at the outset exercise its power. No city or corporation should be allowed a claim of exception from the operation of any of the provisions of the Act. The old system of sanitary administration in this city has been essentially bad, and a mere change of form in the organization will not be an improvement. The Public Health Committee of the Corporation was not a model to be imitated, or a pattern to be followed. It could report well, but always executed badly, and the hand of its principal medical officer was tied to a great extent, and his recommendations neglected. The money that should have been husbanded and expended in the preservation of the public health was wasted in other directions, and what remained went mostly in salaries to a very inefficient and badly organized staff. There will, no doubt, be a number of plausible excuses given and a desire to propitiate the ratepayers will be shewn now that the Municipal Elections draw

near. The citizens of Dublin have had long experience of these modes of action, and it behoves them to be on their guard. Let it be understood, once for all, that a Health Act has been passed, and that its provisions must be enforced in their integrity in the interest of poor and rich. We have had obstructions enough—scheme, scandal, and wanton and wilful delays leading to the sacrifice of hundreds of human lives. One word more, with the reform of the administration of the public health let there also be a reform of the "Reformed Corporation" of Dublin. New men are as necessary to the uprise of the city as new measures, for the municipal system of this capital has for many years back stunk in the nostrils of our people.

Since the above was written, several more union boards have met. Some have appointed their medical and sanitary officers, at much lower figures than what we have stated—some so low that a quack doctor or a cow doctor would not accept. Several other boards, after much wrangling, appointed a few of their staff, but left the question of remuneration to stand over; and more than one union has given indications of acting up to the spirit of the Thurles resolution, in asking the Local Government Board to withdraw its orders.

The Irish Health Act, like the English one of 1872, will be a failure in the rural districts, for the larger proportion of the members of these new sanitary boards have a direct interest in obstructing the operations of the Act, both in their capacity of landlords of wretched houses which they will not improve, and as local legislators who will legislate or rather administer in their own interest. There are hot times before the medical and non-medical sanitary staff, and there will be little less than vexation and suffering until the present Act is entirely remodelled, and the machinery of it more properly adjusted for achieving the ends in view.

#### OUR GAS SUPPLY.

On their own showing, the prospects of the Company, the directors, and the shareholders, are brightening up, although the latter are still without a dividend. No matter who may come to the wall, the directors at least will be the first to profit by the tide of events. So long, however, as the gas supply of Dublin is a monopoly, little benefits will be forthcoming for the consumers. We agree that the price of coal should govern the price of gas, but the consumers should be made aware of the fact, that with good management, perfect mains and machinery, there can be no loss in the supply of gas. In the manufacture there are little or no waste products. Besides coke and gas-tar there are half-a-dozen of other valuable products, all of which obtain a ready market. Even the calcined cinders or clinkers can be used, and are used, in foundations and concrete buildings, and are also applicable as road metalling. Every outcome in the produce of gas is a profit to the gas company, and a market for all the substances can be found. The consumers, as well as the shareholders, should participate in these profits by a reduction in the price of gas.

The half-yearly reports of the Alliance Company are not fair statements, for the shareholders and consumers are not furnished with the requisite particulars for judging, or of knowing, the sources of the income of the company. The several London Metropolitan Gas Companies are now reducing their prices, fearing that their monopoly will be broken up by the united action



of the Metropolitan Board of Works and the City Corporation. If the Dublin Corporation was a competent and truly representative body, there could be little objection to their taking the management of our gas supply into their hands; but, having failed in almost every work they have undertaken, and wastefully squandered the public funds, besides making the name of local government a bye-word, and particularly as regards Dublin, a scandal to the empire—we can have no faith in their undertakings. Time may alter the case, but while corporators are directors, and the present relations exist between the Civic body and the Gas Company, local magnates, instead of protecting our citizens, will be more concerned in protecting their own personal interests.

### SLOB LAND RECLAMATION.

**HAARLEM MEER**—16 miles in the longest and 8 in the greatest width, containing 45,230 acres—was completely drained in 1852. The depth was 15 ft., three powerful Cornish engines of 500 horse-power each (nominal) having pumped out the water, and since kept it clear. In 1839, King William I. and the Dutch Government voted £834,000 to drain it; and when fully completed in 1852, with roads, bridges, &c., the State sold the lands. In 1871 the population inside the old Meer was 11,000—the estates or farms from 40 acres (smallest) up to 300 averaging 120; the lands free of taxes for 25 years from date of sale in 1852, subject to a drainage rate of 6s. 8d. per acre, which includes the drainage, dikes, canals, roads, and bridges. Round the Meer is a canal, 120 ft. to 150 ft. wide, and 10 ft. deep, for navigation as well as pumping the water of the Meer into it. Inside the Meer roads and canals cross, each at 1 to 1½ mile distance. The roads are capital, of gravel and stone, but very costly, the material being brought 250 to 300 miles from Prussia by the Rhine. There are 8 churches, 11 schools, and several villages in the bottom of the old Meer, where the sea flowed and a naval engagement was fought between the Spaniards and Dutch about 250 years ago. The steam engines cost each £20,000, and the buildings and boilers to each, £20,000, making £120,000, but, with the other charges, £150,000, while windmills would have cost double that amount, there being a further saving in dredging peat from the bottom of the lake of £40,000, and of three years in completing the works. There are ten lifting pumps to one engine, and eight to the two others; they are placed at each end of the lake, and one about half way, lifting the water 16½ ft. or 17 ft. into the canal. The smaller drains inside are 2½ ft. below the surface of the canal. The chief productions are butter and cheese. The boers, whether owners or farmers of 40 or 300 acres, all move in the same rank, with comfortable wooden houses well furnished, and the cows living in byres very clean; their tails are tied up, and they have coats on to keep them warm. The nobility and gentry in Holland are very proud, looking with contempt on business men, farmers, &c., no matter how rich the merchants may be; the merchants, again, look down on the boers, farmers or shopkeepers, but there was one exception in Mr. Amersfoort, of Badhoeve, a great landowner, who bought portions of the Meer and farmed it in the highest style. His outlay on railways, tramways, buildings, steam ploughs, and the newest English machinery, must have been great. The fields about 100 acres each give ample room for steam. There are fifty employed on this farm, between tradesmen and labourers. He had as steward the son of a boer, as the labourers would not work under one who had risen from the ranks. The steamers and canal boats lie alongside the farms where they ship the produce to Amsterdam, seven miles, and take return cargoes of manure; the rails go alongside the boats, and convey the manure all over the farm. Every tourist to Holland should visit Badhoeve and the

engine next it, where Mr. Urrer, a Cornish man, has been since the commencement of the drainage; he is very intelligent, and can introduce a stranger to the boers, who are great friends of his.

Within six miles can be seen the works of the Amsterdam ship canal to the North Sea, making the distance from the German Ocean to the city under 10 miles, with 24 ft. of water at all times. The company is reclaiming 12,500 acres from the sea, on which they raised by debentures £66 10s. per acre to aid in making the canal. The lands originally bought in Haarlem Meer at £17 to £19 per acre, are now worth £80 to £90; the cost to the State was £19; while the drained lands near Rotterdam cost £22 where windmills were used. When the ship canal is finished, the State proposes to reclaim from the Zuyder Zee, 16 ft. to 24 ft. deep, 500,000 acres, and sell as they did Haarlem Meer. At Rotterdam the people's park, about 22 acres, was reclaimed from the sea, and is beautifully laid out with walks, drives, ponds, and assembly-rooms for dancing, &c.; swans and foreign birds are in the ponds, with gold and silver fish. The park is 10 ft. below high water, but 6 above low, so that the drainage is by sluices without pumping. By making lakes and ponds the earth was got to raise other portions of the park, which is now beautifully wooded.

The engineer of the people's park at Blackrock might get some useful hints from this.

The Blackrock Township Commissioners are doing well in trying to get an aquarium in their park which is so near to Dublin.

IMPROVER.

### THE WHITEWASH BRUSH.

The whitewash brush, the whitewash brush,  
Is greater than Allah, greater than Josh;  
In letters and science, in commerce and art,  
It plays its wondrous, powerful part;  
Aye! all its laudatory compeers are hush  
Compared to the mighty whitewash brush.

Commanded by influence or gold,  
It is the protector of young and old;  
Every department of modern life  
Reeking with wickedness and strife,  
Society, politics, religion—Hush!  
They are all safe 'neath the whitewash brush.

Scandal and gossip, the signs of our time;  
Petty sin and unheard-of crime;  
Judge and president, priest and flock,  
May boldly at public opinion mock;  
Whatever the peril, let them rush  
And hide in the shade of the whitewash brush.

With a few quick strokes it covers shames,  
Paints all fairly the blackest of names;  
Investigation it renders short,  
With a friendly committee's swift report;  
And behold, instead of the sinner's crush,  
A coat laid on by the whitewash brush.

All other emblems, then, let us lay down,  
The cross and the sword, the mitre and crown;  
Nor learning, nor justice, nor faith should miss  
To take for their standard a sign like this—  
Without a scruple, without a blush,  
The gilded sign of a whitewash brush!

### MANUAL OF PUBLIC HEALTH FOR IRELAND.

We are glad to see that "A Manual of Public Health for Ireland" is in preparation, and will shortly be published. The work is undertaken by Dr. Grimshaw, who will be assisted in other branches of the subject by J. Emerson Reynolds, Professor of Chemistry; Robert O'B. Furlong, Barrister-at-Law; and J. W. Moore, M.D. If the work be as well executed as the English Manual of Public Health, edited by Mr. Ernest Hart, it cannot be otherwise than a most useful and indispensable volume. We have no doubt, judging from the names of the co-labourers, that the work will be well executed. The passing of the Irish Health Act, and the existence of other Irish Sanitary Acts, and the non-assimilation of the law in some instances, render such a volume necessary for the use of members of sanitary authorities, officers of health, and others in this country. The work will be published by Fannin and Co., Grafton-street.

### THE LATE SOCIAL SCIENCE CONGRESS.

We have elsewhere spoken our views in respect to the labours of this association, and the services conferred upon society by social and sanitary reformers. All we desire to add here is, that in the several departments of the late Congress sundry papers were read, and discussions ensued of an important and instructive character, calculated to achieve public good. In the Education, Economy and Trade, and Health departments particularly some of the papers were excellent in spirit and sound in views. The relations of capital and labour, trade unionism, co-operation, houses for the working classes, elementary and technical instruction, factory and workshop legislation, drainage, sewerage, storage of water, its use for domestic purposes, and several cognate matters were handled by many well-known writers and public speakers. The exhibition of sanitary appliances in connection with the Congress was creditable. The concluding meeting of the Congress was held under the presidency of the Earl of Rosebery, on Wednesday, the 7th inst. The next year's Congress will be held at Brighton, and the one for the following year at Liverpool.

### THE O'CONNELL MONUMENT.

The position of the O'Connell Monument Committee, and the position of the incomplete work of Mr. Foley, are alike unsatisfactory. Viewing all the circumstances of the case, and looking upon the length of time the work has been in hands, we certainly must say the committee are to blame. At the late meeting of the committee one of the members (Mr. Dennehy) said:—

"He was one of those followers of O'Connell who, at the time subscriptions were being raised for this monument, urged that the work should be executed in Ireland, where there was sufficient artistic skill, but now after twelve years, they were in a dilemma—they were, in fact, in a difficulty as to whether it would not be better to give up what had already been done in connection with this work, and commence with a new design; because he did not think that it was now probable that Mr. Foley's design would be completed in accordance with the artist's ideas. They should, however, endeavour to ascertain from the representatives of Mr. Foley whether the design can be carried out; and a statement as to the money to the credit of the committee should be prepared. He believed they would be compelled ultimately to have a statue erected which would be in entire accordance with Irish Ideas."

To do Mr. Dennehy strict justice, we must say that he has been anxious all along to expedite the completion of the monument. During Mr. Foley's last visit to Dublin, when he attended at the committee-rooms, City Hall, we remember Mr. Dennehy putting the question point blank to the sculptor—"When did he think he could promise the statue to the Committee?" or words to that effect. Mr. Foley replied that it would certainly be finished within three years from that date, and he went on to describe the portions of the work that were then completed and in course of completion. Some allowance, however, must be made for the occasional illness of the sculptor subsequently. The fact, nevertheless, remains that Mr. Foley had more commissions in hand than he could possibly execute these ten years to come, had he lived. If the statue of O'Connell is not ready for casting from the hands of the lamented artist, it becomes a question whether its completion should not be handed over to a resident sculptor. It would be sheer folly to have a mere sham centenary celebration over a model or in any other form in the absence of the actual work. It appears that there is a sum of £9,992 odd in the bank, £2,000 having been paid to Mr. Foley. We repeat what we have already stated, that no real difficulty stands in the way of completing the statue by next August, if the committee act promptly and wisely in the matter.



PUBLIC RIGHTS AND PUBLIC  
NUISANCES.

## EPIDEMIC DISEASES.

## FIFTEENTH ARTICLE.

EPIDEMIC diseases are at present prevalent in several parts of the British Islands, and Ireland particularly is suffering severely from the visitation at this moment. It might, perhaps, be more critically exact to say that a number of the diseases coming under the title of epidemic are not visitations in our case, as more or less they are always with us in this country. Scarlet fever is very rife at present in our towns and cities, and it is also very rife in portions of the English metropolis. In our summary of the Registrar-General's returns in our last issue it will be seen that in those towns and cities where small-pox, scarlet fever, diphtheria, typhus, and relapsing fevers were prevalent, the sanitary condition of the places was generally bad, arising either from impure water, unhealthy homes and surroundings, and general uncleanness.

The diseases we have just named belong to the first class of epidemics, including measles and whooping cough; and the second class of epidemic diseases comprises cholera, enteric fever, and diarrhoea. The isolation of the patient is all-important in the first case, as the diseases are highly contagious. In regard to the second class, Dr. Simon says—"The quality of infectiousness belongs particularly, if not exclusively, to matters which the patient discharges by purging and vomiting from his intestinal canal." With the exception of small-pox, the number of children who are attacked and die from the first class of diseases is very large; this exception, however, is only considered an apparent one, and being due to the influence which the vaccination of infants has over the disease, for, apart from vaccination, small-pox is more fatal to children than to adults. Small-pox attacks adults often more readily than the other fevers to which it is related.

Our articles are headed "Public Rights and Public Nuisances," and all through its relevancy as a title or general heading will be seen. Public health is a public right, and whatever tends to its destruction is a public nuisance. To secure both public safety and individual health, the measures we have discussed for some months back, in one form or another, are absolutely necessary, as they all have a bearing upon the public health, and the ills which a neglect of sanitary precautions and requirements renders inevitable are consequent public nuisances. Preventable ills are even greater nuisances than those which our knowledge as yet renders us unable to prevent, and the governmental or local body which is guilty of neglecting the measures that will prevent the spread of diseases are guilty of a species of murder.

Want of air, want of proper food, want of cleanliness, ill-ventilated rooms where the poor are obliged to breathe over and over again the same vitiated air, and often in companionship with members of the family suffering from contagious diseases, are a few of the causes that contribute to the spread and maintenance of typhus and relapsing fevers. Small-pox, scarlet fever, and some more diseases mentioned are always to be found more or less in our midst, but at times they are epidemic. Small-pox is never totally absent from this country, but there are periods when the contagion spreads and works destruction over one or several districts. We firmly believe that these epidemic diseases can be ultimately stamped out by carefully-administered sanitary regulations. Pure water, cleanly houses and persons, and pure air will cut at the root of all contagion; but local public duty and individual duty must work in unison, and the very poor who are unable to perform the offices essential to the maintenance of health must be assisted to do so by public authority.

The propagation of epidemic diseases is aided greatly from want of ventilation both in dwellings and public places, and scarlet fever particularly will always be found to spread most in dwellings where there are no doors or windows at hack. It has been noticed that this fever has been known to travel up one side of a street from house to house until it came to a cross street, and then go no further. Meeting with an open space and free ventilation, its passage was barred and its ravages stopped. The class of diseases we are speaking of is often propagated at schools, and great precaution should be taken during the prevalence of an epidemic in sending children to schools. Under the new Irish Health Act the dispensary or medical officer of health will have need to act with discrimination as well as caution. There will be matters he will be expected to do that does not belong to his province; yet, if he neglects to take a note of them for his own safety, he may be held responsible at a time when evidence is not attainable, and when ignorant guardians may with impunity throw the fruits of their own neglect upon his shoulders. We would like to protect medical men in the performance of their public duties under the Irish Health Act, or other sanitary Act, though we must confess, at the same time, they are called upon to perform functions in connection with the same Act which are entirely beyond their province, and which they must fail in practically performing, save through a deputy.

There are several diseases, such as measles and whooping cough, incidental to childhood, and are looked upon by parents and others as necessary visitations. In fact some of their diseases are hoped and longed for, parents fondly believing when, if the children are once attacked and escape, they are then safe through the remainder of their lives. Second and third attacks of infantile diseases are not, however, uncommon. Disinfection in cases of infantile diseases, particularly in that of measles, will be necessary, for the infected air and clothing will communicate the disease. It is the duty of the sanitary officer to see that disinfection is carried out, but the medical officer of health should acquaint himself with the nature of the case by a visitation to the houses where measles, small-pox, and other infectious infantile diseases exist in his district. Well-to-do families may and can have their own family doctor to advise, but the medical officer of health must to a large extent in cases of contagious diseases affecting the poor, act as an adviser in the interest of the public.

In all cases of epidemic diseases, a plentiful supply of pure air will be found the greatest preventive. It is also essentially necessary that all refuse matters—rotten vegetable, and animal manure heaps, human exuviae, and other substances giving forth or liable to give forth poisonous exhalations—should be removed. For the disinfection of rooms and clothes, &c., several preparations have been recommended, but it is not our province to pronounce seriatim on their respective merits.

Isolation, as we have already pointed out, in cases of contagious disease, is necessary; and it also should be as complete as possible. The sanitary authorities are empowered by the 37th section of the Sanitary Act of 1866 to provide "hospitals or temporary places for the reception of the sick." This is a duty heretofore too often shirked by the local sanitary authority, and here in Dublin the citizens have had recent experience of the wrangle and delay that occurred in the matter of the Convalescent Home. There are hundreds of the tenement houses of Dublin as well as other towns and cities in the kingdom utterly unfit for dwelling in, not to speak of nursing the sick in them. The rooms of tenement houses are generally overcrowded, either by members of the one family or by members of another in addition. A sick room should be kept sweet by having a constant current of fresh air passing through it. A small fire should be kept up also, and the window should be opened a little on the

top, but all draughts must be avoided; and there should be as few articles kept in the room as are barely needed. The room where the sick are located should be apart from other living rooms, and kept distinct; and it would be preferable if it was not a papered room. It is recommended to hang a sheet over the doorway, and keep it moistened with carbolic acid. Instead of opening the window, it may be advisable in many cases to open the door, as a supply of air for the sick room may be forced to come from the rest of the house, the staircase into which the room opens being freely supplied with fresh air. It is also recommended that carbolic acid in solution or some of MacDougall's powder (carbulates of lime and magnesia) may be sprinkled about the floor. The linen or other cloths used by the patient should be placed at once in a vessel containing water mixed with some of Condy's fluid or carbolic acid, and should afterwards be thoroughly well boiled, and all the excretions from the body of the patient must be effectually disinfected. Cloths or rags used for wiping the nose or mouth should be immediately burned. Cases that are accompanied with skin eruption—such as small-pox and scarlet fever, the infection of the air and articles of clothing, &c., may be greatly diminished by rubbing the patient's body with olive oil impregnated with carbolic acid. Vessels used for receiving excretions should contain a small quantity of some powerful disinfectant. In the Manual of Public Health, already alluded to in our articles, and to which we are indebted on many points, crude carbolic acid or a solution of green vitriol (the proto-sulphate of iron—ferrous sulphate), or some of Burnett's fluid, is recommended. This applies to the vessel in which the expectorations are received as well as to that used for the excretions from the bowels and kidneys. The disinfectant should always be placed in the vessel before it is used. Particular attention should also be given in the matter of glasses, cups, spoons, and other service used in the sick room, which should be carefully cleansed before being used by other persons; and a basin of water containing a little carbolic acid or Condy's fluid should be always provided for the attendants to wash their hands in before leaving the sick room.

We shall continue this subject in our next, and point out some of the abuses connected with the nursing of the sick in their own rooms, and their removal to hospital, the duty of the medical and sanitary officers, and other matters relating thereto. Imperfect as are our Sanitary Acts, and our latest addition, the Irish Health Act, still if the letter of the law was fulfilled in every instance the death-rate of the country would be considerably reduced, and the improvement in the public health made manifest.

## CORPORATE DOINGS.

*In re Essex Bridge*, the Town Clerk, at the monthly meeting, read a report from Mr. Parke Neville. It stated that

In 1871, the Council having decided on improving Essex Bridge, applied to the Port and Docks Board, who, under the Acts of Parliament, were charged with the duty of designing and executing all works connected with the bridges over the Liffey. Their engineer prepared a plan, and a presentment was obtained to carry on the work. Subsequently he (Mr. Neville), in connection with the Main Drainage scheme, suggested a plan for the widening and improvement of the bridge, and also the widening of the adjacent quays, which was sent to the Port and Docks Board with a request that they would get Mr. Stoney to modify his plans. Subject to such modifications, the bridge had been altered in strict accordance with the plans submitted to the Council and approved of, and the work had been executed in the very best possible manner.

Mr. Dennehy said, of course it could not be remedied now; but no matter what was said or written about the bridge, the fact remained that it was the most unseemly structure of the kind in the kingdom.



Mr. French thought they should suspend their verdict till the work was completed. There was an old saying, which was likewise a true one—"Children and fools should not see half finished work."

Mr. Maclean agreed with Mr. Dennehy that sufficient attention had not been paid to combining the ornamental with the useful in the new bridge.

Mr. French said the bridge as it stood would cost £30,000, and if they had gone in for the ornamental it would have been £5,000 or £7,000 more.

Mr. Byrne said the bridge would look quite a different thing when the work was completed. They should remember that the plans embodied specifications for the widening of the adjacent quays, and when that was done he was sure Messrs. Dennehy and Maclean would read their recantation.

Mr. Dockrell reminded the house that the lattice work of the bridge was yet to be painted, gilded, and ornamented.

Mr. Lawlor—Yes, and figures of prominent members of the house erected at intervals on the top of the open work!

On the motion of Mr. Dennehy, the report was ordered to be inserted on the minutes.

#### THE GRATTAN STATUE.

The Town Clerk read a letter from the honorary secretaries of the Grattan Statue Committee, stating that the model of the statue being finished, and the casting in bronze about to be made, they would ask the Council if any formal act was necessary to sanction the granting of a site for the statue in College-green, to do all that was necessary in the matter, in order that the site might be at once enclosed, and measures taken for erecting the pedestal.

The Hon. Mr. Vereker observed that the statue was one of Foley's greatest efforts, and would be an ornament and credit to the city. He did not know whether the proper formalities for granting the site in College-green had yet been carried out.

The Town Clerk—They have not.

Hon. Mr. Vereker said he quite remembered that the Council did vote a site for the statue in College-green.

Mr. Byrne deprecated any off-hand proceeding in the matter. If the statue was erected in the open of College-green it would be dwarfed into a pigmy by the equestrian statue of William III. Therefore they should be cautious. His own opinion was that the best place for the statue, if it was to be erected in Dublin at all, would be a situation within the railings in front of the grand portico of the Bank of Ireland, and the leave of the directors to enable the statue to be put up there ought to be applied for.

Mr. Murphy and others approved of Mr. Byrne's suggestion.

Hon. Mr. Vereker submitted that the Corporation having already resolved to grant the site applied for—that in College-green—it should be given.

Mr. Byrne observed that the site in College-green alluded to by some members, had been, by a resolution of the House, appointed for the Albert Memorial.

After further discussion, the matter of selection and approval of a site was remitted to Committee No. 1, with instructions to report to the Corporation.

Alderman MacSwiney suggested that the name of Essex Bridge, which had undergone a complete change, be changed to "Grattan Bridge."

Mr. French—Only a portion of the bridge has been altered.

Mr. Byrne—You will never get the citizens to call it anything but Essex Bridge.

Mr. Reilly said he was aware that a memorial would be presented from the residents of Essex Bridge, asking that the entire street from Cork Hill to the bridge be called Parliament-street. It had now two names, a portion of it being called Parliament-street and the other part Essex Bridge.

#### THE BALDOYLE PROPERTY.

The Town Clerk read a report from No. 3 Committee, enclosing a communication from Mr. Francis Morgan, the law agent, recommending the adoption of the provisions of the Act 29 and 30 Vic. cap. 44, to borrow from the Commissioners of Public Works at least one-half the actual cost of erecting twenty labourers' cottages in Baldoyle, the loan to bear four per cent. interest, and to be repaid in forty years. He (Mr. Morgan) had no doubt if such loan be procured, and twenty new cottages be erected, the full cost would be amply and profitably repaid in case of sale of these lands, which he had so often suggested and again earnestly recommended.

Mr. Dennehy said the committee was not at all unanimous on the question opened by Mr. Morgan's letter. He moved that the communication be marked "Read."

Mr. French seconded the proposition, which was adopted.

There needs to be a little light let in upon the history of Corporate doings in respect to the management of the property at Baldoyle. The public have never yet been rightly informed of the gross abuses connected therewith. In fact the history of the acquirement of this Baldoyle property, and the transfers that took place from time to time during the present century, is a sealed volume to the citizens of Dublin. Messrs. Dennehy and French would be doing a service to society if they would move for a report upon the subject, extending back to the period when the present "Reformed Corporation" entered office.

In the last century (1793) an attempt was made by the celebrated preacher, the Rev. Walter Blake Kirwan, who was at that time rector of the united parishes of Howth and Baldoyle, to enforce the payment of tithes upon the city lands. He had notices served upon all the city or Corporation tenants at Baldoyle. In consequence, a post assembly was held at the Exhibition House (the old Assembly House, William-street), and it was determined to withstand the said claims as obsolete and unfounded; the city lands there having been from time immemorial tithe free. A notice of this determination was in consequence given to the city tenants. Thus the old Corporation looked after the interests of the Baldoyle tenants. How the present Corporation has attended to the interest of the Baldoyle tenants for the last thirty years and upwards, we will tell in detail on an early occasion, if some honest member does not move for a return.

#### HOW THE LAGO FUCINO WAS DRAINED.

The drainage of Lago Fucino, which was attempted in the time of the Emperor Claudius, has been (it is said) carried to a successful issue, under the skill of modern engineers. In its description of the works, the *Pall Mall Gazette* informs us that:—

The excavations made in the course of them explained the causes of the ancient failure. The engineering of the Romans was defective, the calibre of the tunnel was insufficient, and varied considerably in different parts, and the level was very irregular. It would seem that the work was what we should now call "scamped" to a considerable extent. Narcissus, Claudius's director of works, had many other things to attend to, and, suffering from gout, was unable to undergo the labour of inspecting personally the progress of the works in the remoter portions of the tunnel. This is, no doubt, the explanation of the fact that while the two ends of the tunnel are admirably finished, the excavation towards the middle has been done clumsily and carelessly. The consequence of all this was, of course, that what with the mud of the lake effecting lodgments here and there, instead of being carried through, and the sides and roof falling in for want of proper support, the Roman emissary was always in a chronic state of choke. Meanwhile, though the lake occasionally fell, its tendency on the whole was to rise, and in 1816 it had risen eleven metres in thirty years. At length in 1852 a company was formed to effect the drainage at their own risk, with the concession of all the land actually recovered from the lake. Difficulties, however arose, and the scheme would have fallen to the ground like its predecessors but for Prince Torlonia. He already held one half of the shares, and he boldly took up the other half, thus becoming in person the company. He immediately put the work into the hands of Montricher, the engineer of the Durance canal, who submitted two plans to

him. One was the restoration, rectification, and enlargement of the Claudian emissary, by which he guaranteed to drain the lake completely, but not to protect the lower parts of the basin against inundation in times of excessive rains. The other was to pierce a new tunnel, quite independent of the old Roman one, of a much greater bore, and constructed to last for all time, and carry off any amount of flood. With equal spirit and wisdom Prince Torlonia chose the latter, and for eight years perseveringly pushed on the work, in the teeth of endless difficulties of one kind or another. At a critical period Montricher died, and at one time success looked so doubtful that it was a saying in Italy, that 'if Torlonia did not drain Fucino, Fucino would certainly drain Torlonia.' At length, under M. Bermont, the successor of Montricher, the passage of the water was effected, and the peasants of Avezzano, who were, and no wonder, sceptical as to the result, had to admit that 'this time Fucino was really on the move.' Since then the work has proceeded steadily, and Fucino has been gradually changed into a broad fertile plain.

The lake was said to be 35 miles in circumference, and to be within a mile of the town of Avezzano, where travellers wishing to visit the towns on its shores are advised to hire a boat. The existing lake is little more than a tarn, barely 3 miles in circumference, which lies in the eastern part of the basin, opposite the village of San Benedetto, and a good hour's drive from Avezzano. The grand sheet of water is represented by a vast plain, as level and as green as a billiard-table, already on its western sides rich with vines and maize.

Across this plain, nearly from east to west, stretches the line of the canal by which the water is led to the mouth of the emissary. There, by three sluices, set in masonry as massive as any Roman work, it passes with a sullen roar, the parting groan of old Fucinus, into a vast square cut-stone basin, at the farther side of which it rushes under a fourth sluice and plunges into the bowels of the mountain. Prince Torlonia himself is not the only person who gains by this great work. The entire gain in land amounts to nearly 45,000 acres, but of this more than 6,000 are the property of individuals or of the communes, being either land which has been totally submerged for many years past, or else flooded three years out of every four.

#### LIFFEY PURIFICATION UNDER A NEW BILL.

MR. John McEvoy, in a letter to a contemporary, makes the following pertinent remarks:—"The citizens are to be congratulated on the prospect of a new bill for the purification of the River Liffey. To carry the recommendations of the three independent engineers into effect, the Act of 1871 must be repealed, and in the repealing Act powers must be conferred upon the Corporation to take land for the proposed new sewage reservoirs. For the new flushing reservoir at Ballysmutten new parliamentary powers will be requisite. The river cannot be dammed up, and all the riparian proprietors, mill-owners, and others interested in the waters of the Liffey between Ballysmutten and Dublin (a long stretch) deprived of their property without an Act conferring compulsory powers. We may look forward to an exciting contest between those riparians and the Corporation—a grand parliamentary tournament, costly, no doubt, but if the result be worth the money it will be worth it. I would propose to some of your intelligent National Schoolmaster readers an arithmetical problem: Given £20,000 as the cost of getting a drainage bill, what should be the cost of getting rid of it by passing another bill? Some citizens may be apprehensive about the cost of the new drainage works exceeding the estimates. They should recollect all a new bill may impose upon them is the cost of obtaining it—a few thousands at the utmost. After the bill has been passed, should contractors prove too exacting and so unreasonable as to send in tenders at double or treble the amount of the estimates, or should riparian compensations turn out to be too large, the Corporation will know how to protect the citizens by rejecting all extortionate demands, and, dropping the scheme, go for another new bill."



## HEALTH AND SOCIAL PROGRESS.

As President of the Health Department, at the Glasgow Congress, Dr. Lyon Playfair, M.P., delivered an admirable address. We have not space to reproduce it *in extenso*, but we annex a short summary, and fully subscribe with his views where he says, no epidemic can resist "clean houses, clean air, and clean water," and, of course, cleanly persons. The right hon. gentleman began by stating that he addressed the meeting in the capacity of an old sanitary reformer, having been a member of the Royal Commission on Public Health in 1846, when he published his report on the state of large towns in Lancashire. The first question was, were we making distinct and satisfactory progress by our sanitary measures? If we went back far enough in the history of our country there were distinct assurances of improvement. The mortality in London from 1660 to 1679 was no less than 80 in 1,000; and taking the average of the last thirty-four years the existing death-rate in England is 22.4 per 1,000. The mean age of the whole population at the last two censuses of 1861 and 1871 was exactly the same—17.4. And the rate of mortality in these two years was only slightly different. There was a constant disposition to congregate in towns and to leave rural districts. There were 103 towns now in England and Wales containing upwards of 20,000 inhabitants, and these 103 towns contain a larger population than the whole of England and Wales did at the beginning of this century. In every class of districts in Scotland the rate of mortality was increasing. From ten to thirty per cent. of the population of the towns of Scotland consisted of an Irish Celtic element, and their habits had not improved the sanitary condition of the Scotch urban population. The death-rate of London was only 22.4 per thousand, or the same rate as that of small Scotch towns, and very different from 30.4, the death-rate of Glasgow, or 31.3, the death-rate of Greenock. The difference was not due to climatic severity, for while 30.4 out of a thousand die in Glasgow, only 19.4 die in the rural districts of Lanarkshire. Going on to consider the causes which govern life and death so far as disease was preventable by agencies over which man had control, the right hon. gentleman said that the laws of health, like other laws of nature, were relentless in their severity. Intelligent submission to them produced health and longevity, while the slightest infraction of them was mercilessly punished with disease and shortness of days. For his present purpose he could only refer to some of the more important. The health of a nation, physiologically considered, stood closely in relation to that of an individual, whose nutrition and health depended upon the well-adjusted balance of the supply and waste of the particles which compose the body. All that they need aim to secure was purity or cleanliness in the house, the air, and the water, and genuineness in the food and clothes. No epidemic could resist clean houses, clean air, and clean water. The ancients fought against evil smells more vigorously than the moderns, and the purifications required by the religious observances of the Jews were in the main hygienic precautions. Moses established health officers; and, before long, we may be obliged to enact the ancient laws of Moses for isolating patients with infectious diseases. The isolation of patients affected with small-pox, scarlatina, and measles would one day become hygienic law. When the civilisation of the Egyptians, the Jews, and the Greeks, and the Romans faded, the world passed through dark ages of mental and physical barbarism; and then they had the wondrous epidemics of the middle ages, which cut off one-fourth of the population of Europe. The natural purifiers on which we rely in combating the pollution of our cities were a free supply of untainted air, unpolluted water, a porous soil, and a healthy vegetation in the squares of our towns to help to purify the atmos-

phere, and pour into them life-giving oxygen. It was the want of these conditions which made both town and country dwellings unhealthy. In modern hygiene nothing was more conclusively established than the fact that vitiated atmospheres in our dwellings and their surroundings were the most fruitful of all sources of disease. Next session the Friendly Societies Bill proposed to deal with some of the many causes of juvenile mortality. He had been much censured because he had dared to show by statistics gathered on the state of Lancashire in 1846, that the children insured in burial societies died faster than uninsured children, and this had been confirmed by the Friendly Societies Committee. He had no doubt that the present Government desired to improve the condition of the people, but there was among their supporters a strong objection to increase local taxation, and without that large measures of improvement could not be carried out. What we wanted in the future was not new law, but more efficient administration of existing law. The sanitary conditions of Scotland were deteriorating, while those of England were improving, and therefore greater care should be bestowed upon the former; but it received none at all. He urged upon the Health Section to devote their energies to showing their countrymen how the sacrifice of preventable deaths might be avoided.

## CIVIC LYRICS.—No. LXXI.

## THE DRAINAGE CLUB AT DOUBLE INN.

Let others sing if what I write be true;  
I'll fly no kites, or mix a "bubble" in,  
Although these things are practised at the Mew-  
nicipal Drainage Club at Double Inn.

Some thirty years ago, some clowns I knew,  
Who trod the bogs and walked the bubble in;  
Don't be surprised to hear they're at the Mew-  
nicipal Drainage Club at Double Inn.

They came, and saw, and conquered me and you;  
Some slipped and got a little trouble in,  
But still they stick like leeches to the Mew-  
nicipal Drainage Club at Double Inn.

Where would they stick but where the blood comes through?  
With Bills come metal mains, and rubble in,  
And jobs for poor relations at the Mew-  
nicipal Drainage Club at Double Inn.

Fifty plans and upwards were looked through,  
From folks who fished and gleaned the stubble in;  
The Trio boiled all these down at the Mew-  
nicipal Drainage Club at Double Inn.

The Liffey's water black, will not be blue;  
The Poddle will not stink or bubble in;  
Tolka and Dodder's saved—so say the Mew-  
nicipal Drainage Club at Double Inn.

Thanks, thanks, benefactors, tried and true!  
November comes; it may bring trouble in.  
Tis time to cleanse the stables at the Mew-  
nicipal Drainage Club at Double Inn!

CIVIS.

## ANENT ESSEX BRIDGE.

We gave in our last issue some particulars about this structure, whose opening took place on the date of our last publication. An esteemed contributor very sensibly and accurately pointed out some of the defects, while admitting the substantial character of the main portions of the work. Ornament, certainly, seems to have been sacrificed to utility in this instance, for which no amount of painting and gilding will compensate. The descriptions of the bridge which appeared in one or two of our morning journals were, to say the least, amusing. It is not expected that, in technical matters bearing upon architecture and engineering, the ordinary writers on our daily papers will not commit mistakes; but a few mistakes are small faults compared with the muddle that we are mostly presented with. Surely in the matter of the history of Essex Bridge—the bridge of George Semple,—the foundations of which are utilised for the present structure, our city editors and writers ought to be better posted up. Confining our remarks to the

mere technical part of the work, we will merely add, if it was an architect, engineer, or a builder who supplied the description to our morning journals, he ought to have done it whilst in a sober state. If it was the work of a mere penny-a-liner, as far as the technical part of the work was concerned, it did not much matter whether he was drunk or sober.

## MUSEUMS AND EXHIBITIONS.

A FEW days ago, at the King's College, London, Professor Leone Levi delivered an introductory lecture on "The Economic Value of Museums and Exhibitions." The professor observed that, with the rise and spread of churches and schools in the great centres of population, museums and art galleries should go hand in hand to stem the tide of ignorance and crime. Although objection might be raised against impoverishing the temples and palaces of Carthage, Nineveh, and Greece to enrich the museums of London, Paris, and Berlin, yet it was justifiable on the ground that the benefit of the greatest number was being thereby promoted. In many ways museums contributed to the advancement of science and art. Referring in detail to the museums of London and its vicinity, Professor Levi said that the curators of those places were men of the highest order, and were rendering great service to science; and although they did not teach through the medium of lectures, students who visited the museums with a view of pursuing the highest branches of knowledge benefited greatly by the guidance rendered by the curators. Museums were a means of public instruction, and, together with exhibitions, served the economic interest of the country; and, inasmuch as they extended the faculties of the people, promoted trade and commerce. Some 30,000,000 persons had visited the three exhibitions of London, Paris, and Vienna; and millions had frequented the South Kensington Museum, and great numbers from year to year the British Museum, the Louvre, the Vatican, and the Berlin Museum; and it was impossible to doubt but that such visits were instructive to the visitors. The time had not yet arrived when such places could be dispensed with, in proof of which he instanced the imperfect knowledge, after one hundred years of close intercourse between Great Britain and India, of the capacities and soil of the latter country, and the habits and wants of her many races. In regard to the population of London, that city had a smaller number of museums than any other capital in Europe; and, again, in Rome, all public museums, and the majority of the galleries of art of private individuals, were free; and yet such a place of historical interest as the Tower of London was not yet open free to the people. The museums of the metropolis were also badly situated, for, although the British Museum was easy of access, South Kensington Museum was too far west, and it seemed as though the latter locality had been chosen for a city of museums. The Professor rejoiced in the opening of the Bethnal-green Museum, and in the endowment of the City with a museum and library; but nothing had been done in the North of London, and the steps taken in the South had not been productive of practical results. Manchester, Liverpool, Dover, Nottingham, Shields, and other places had adopted the Libraries Acts, or had provided libraries and museums by other means; but there were at least 300 cities and boroughs which had taken no steps to secure so great a boon. Much might be done by the metropolitan museums to encourage the provinces in the establishment of museums and libraries. South Kensington had pursued a plan of lending its surplus treasures to local collections, and he trusted in all the chief towns persons would be found ready to receive such aid from the national institutions. Professor Levi then advocated that increased facilities should be given to the people to visit public institutions on week-day evenings. He com-





J. Phillips - del. & litho.

GREY ABBEY  
VIEW FROM CHOIR.



THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



plained of the inability to light the National Gallery, and at some length deplored that the central library at the British Museum, owing to the superabundance of books, and the difficulty and waste of time in obtaining them, did not suffice for the wants of the people. A library, he said, should ever be the handmaid of a museum. With respect to exhibitions, he believed they were on the wane, owing to their frequency, and the probability was that no international exhibition would be attempted in London before 1881. In conclusion, he hoped that the museums and libraries of the present day would be rendered perpetual springs of instruction and pleasure.

#### GREY ABBEY, CO. DOWN.

In this issue we present our readers with a lithographed view from the Choir, Grey Abbey. It is a reproduction from the "Monograph" lately published by Mr. J. J. Phillips, Belfast, and to which we drew attention in our last number.

It is gratifying to learn that the labour which the author has bestowed on this work is likely to be rewarded by a large demand for copies.

#### INDUSTRIAL RESOURCES—WASTE LANDS.

In our issue of the 1st of last month, we pointed to the hundreds of acres of foreshores existing round the bay of Dublin that might be reclaimed with little engineering difficulty, thereby conferring a benefit upon our population, and increasing the wealth of the country. The slob lands of the North and South Bulls were made the subject of public discussion in the last and early in the present century, and schemes were devised for their reclamation, as we have shewn in late articles and many former articles. For the present we will confine our remarks to a brief space, promising, however, to resume the discussion on an early occasion.

The Corporation, on behalf of the Crown, could reclaim these tidal lands, or let them on lease with farm houses and steadings, as has been done at Sunk Island; or sell them, when reclaimed, in estates to suit all classes of purchasers, as Holland has done, reducing here the lots to twenty acres to meet the wants of the small proprietary, and grant loans on the security of the reclamations to proprietors who own foreshores. Such loans could be payable as the works proceeded, but none to be granted in full, except when the Board of Works consider that the reclamations would be ample security, and in other cases to the extent the Board believed it would be good security. This, or a like proceeding, as we have heretofore shewn, would benefit the country, and be certainly the means of keeping a large portion of our population at home, and providing them with remunerative employment. It would also be the means of establishing a small proprietary class round our coasts.

Remembering what the hardy Dutch have done for Holland, not yesterday, but even a century or two ago, it is a sad reflection upon our enterprise that so many valuable acres are allowed, year after year, to lie waste and unproductive. In a sanitary and social, as well as an agricultural point of view this reclamation is called for. It may be added here that the Crown, since 1866, claims all tidal land *prima facie*, and individuals claiming must prove their rights to the Board of Trade in case they have got exceptional grants, otherwise the shores are vested in the Crown. We believe the public

will shortly see an earnest move in the direction indicated, and that the reclamation of the slobs near Booterstown and at Clontarf will be begun. Our columns are at the service of all who really desire to discuss this question, and assist in carrying out a long-desired improvement.

#### MESSRS. BANNATYNE'S NEW BUILDINGS, LIMERICK.

THE local paper gives a lengthened description of Messrs. Bannatyne's new store. The building is 135 ft. in extent and 60 ft. in width, and is composed of limestone and rubble masonry, with chiselled limestone strings and dressings. The external arches are of white Scotch fire-brick. The roofing is of Killaloe slate, with ornamental down pipes. At one corner of the building, facing the river, rises a tower or campanile to the height of 100 ft., surmounted by an elaborate vane. The upper storey of the tower is to contain a clock with four dials, to be supplied from the well-known establishment of Mr. J. W. Benson, Ludgate-hill, London. A peculiarity about the clock is this: its machinery is to be so arranged that the gas will be lighted and quenched at proper times, without any manual interference. In the basement of tower the boiler is placed, and the engine-room is upon the first floor of the building. This department, the contents of which have been supplied by the firm of Messrs. Johnston, Chester, is exceedingly neat, and the machinery of the best description. The engine-room is entered through a massive doorway, moulded in chiselled limestone. The window-sashes throughout the building are of cast iron, glazed with heavy plate glass. That portion of the roof which is seen from the docks is admirably broken up by gables and dormers, by which is protected the hoisting machinery to be used in conveying the corn aloft.

Viewing the building from the Dock-road, one is struck with the appearance of the blank windows. This is considered the most singular feature in the entire structure, and the explanation of the matter is found in the fact that here are situated eight large bins, extending from the basement to the top floor, each one is capable of holding 300 tons of corn. The machinery is constructed so as to permit of raising the corn from the basement to the top floor by means of elevators, whence it can be distributed to the various floors, as required. Having been properly cooled by machinery, the corn is next placed in the bins referred to.

The excavations for the building, which is six storeys high, were commenced in the spring of last year. It was found necessary to keep men employed day and night in order to get rid of the springs so frequently met with in the cuttings. In some instances it was found necessary to go 25 ft. deep before reaching the solid strata of rock, and at no part of the excavations was the depth of cutting less than 13 ft. At this portion of the work it was found necessary to use a large quantity of concrete, upon which a foundation, 6 ft. in thickness, was laid.

The basement is vaulted and groined in brick, and contains the machinery to be used for collecting the corn. This machine is very peculiar, there being none like it in Ireland, and only one instance of the same in England.

The ground floor, where the corn is received in the first instance, and from which place it is distributed by the machinery, is coved like the basement, and finished with cut stone dressings. The massive pillars are of cast iron, and the planking (3-in.) is connected with iron tonguing. From this floor access can be had to the top of the building, either by the staircase in the tower or by the several stairs or step-ladders, by which access is gained from one loft to another in the interior. The arches are of brickwork, the piers being strongly built, and finished with hewn stone. The basement is reached from

this floor by cut stone stairs, and every precaution has been taken to render this portion of the building proof against fire. The other floors present the appearances noticed in the first.

The work is being executed from the plans of Mr. William Sidney Cox, C.E., architect; the builders are the local firm of Messrs. McCarthy and Guerin; and Mr. Hawney is the clerk of works.

[Since the above was in type, and just as we are going to press, an account reaches us detailing the occurrence of rather an unpleasant matter. It appears that the contractors had been paid by monthly instalments on account of their contract. The time fixed for the completion of the work had expired, but Messrs. McCarthy and Guerin insisted that "extra work" had been done, and therefore an extension of time should be allowed. To this the Messrs. Bannatyne demurred, and in consequence sent a large number of men to take possession of the building. The contractors and their men resisted, several assaults were committed, and the aid of the police force was necessary to prevent blood being spilt. The method adopted by the contractors for enforcing their claim is a novel one.—Ed. I. B.]

#### THE CLONTARF AND BOOTERSTOWN SLOBS.

BEFORE and since 1800 several schemes, specially in 1805 [1802], were made to reclaim the slobs on the Clontarf and Booterstown shores, but hitherto nothing has been done. Lately it was proposed to get an Act of Parliament, but in defence to Mr. J. E. Vernon, the respected agent of the Earl of Pembroke, who owns all the land between Ringsend and Blackrock, comprehending the portions of those townships on the reclamations, this has been deferred for another session, to give time for consideration. Should Mr. Vernon, lord of the manor of Clontarf, the township commissioners, and the lessees and others interested, support a bill, this could be got the coming session. It may now be well to give an outline of what was to be done on the slobs mearing the Fitzwilliam estate, and the extent of the reclamation. The area would be about 1,600 acres (the size of the Pembroke Township); the rights to the public of bathing being fully protected, while private interests would be fairly dealt with. The proposed embankment commenced at the South Bull, crossing to Blackrock or Williamstown, and thence running, with open channel of 300 to 400 ft. wide, to Irishtown and Ringsend, giving bathing ground of several acres extent, free here and at Saudymount, to be finished to meet the fair requirements of the commissioners of both townships and the proprietor of the Fitzwilliam estate. The embankment would form a public walk or carriage-drive, planted on each side. Unlike the sea reclamations in Holland, no pumping would be required here, sluices between low and half-tide discharging the water. The same remarks apply to the embankment on the Clontarf shore, where about 550 acres, or half the area of that township, would be improved. The cost on the coast of Lincolnshire, the east of England, was £16 to £25 per acre (similar to the tidal lands here), now worth £60 to £70; while in Holland the Zuid Plas, of 14,820, with fifteen feet of water, was reclaimed by a public company, with windmills, at a cost of £22 per acre, now worth £70 to £80; and the Lake of Haarlem, 16 ft deep, of 45,230 acres, by the State, with steam-power, at a cost of £19 per acre, now worth £80 to £90 per acre. At both these the steam-engines are constantly employed pumping, while sluices here, as on the east coast of England, will do for the drainage. The statement of the proposed reclamations was sent to the chairmen of the townships interested, the Corporation, the Board of Trade, the Port and Docks Board, the proprietors of the Fitzwilliam and Clontarf estates for their consideration.

SURVEYOR.



SIR CHRISTOPHER WREN  
AND INIGO JONES IN IRELAND.\*

It would be satisfactory to know whether the practice of these two great English architects extended to the sister kingdom, or whether they merely supplied designs for the works there attributed to them, without passing into Ireland. There were two public buildings of note built in the last years of the seventeenth century in Dublin; one known as the "Tholsel," a Corporation building, and judicial, which existed to the commencement of the present century; and the other the present Royal Hospital at Kilmainham, intended to serve as an Asylum for Disabled and Superannuated Soldiers,—a sort of Irish Chelsea Hospital.

The Tholsel was erected about the year 1683, and the first stone of the Royal Hospital was laid on the 29th of April, 1680, by the Duke of Ormond, the then Lord Lieutenant of Ireland. The ceremony of laying the second stone was gone through also, the honour falling upon Francis, Earl of Longford, the then Master-General of the Ordnance. In some of the works and "views" treating upon Dublin, we are told that the Royal Hospital was designed by Sir Christopher, and in others it is asserted it was erected after a design by Inigo Jones. James Gandon, who though by birth an Englishman, yet by practice was an Irish architect *par excellence*, and to whose ability Dublin owes the best of her public buildings, says, in an essay he wrote on "The Progress of Architecture in Ireland," "the architecture of this building (the Tholsel) was in the style called King James's Gothic, yet from the largeness of its component parts, it possesses a picturesque appearance, and was the first noble work in Dublin that was decorated with statues, having one of Charles II. and James Duke of York (James II.) The Royal Hospital at Kilmainham was also building at this period. The design of this building was attributed to Inigo Jones, but on what authority this conjecture is founded does not appear, and of the truth of the assertion there are strong doubts, inasmuch as Jones died on the 21st of July, 1651, thirty-two years before the commencement of the building. Whoever was the architect of the building, it would be very desirable to have it recorded; for though it possesses no superior merit to justify the superior hand of that great master to whom it is attributed, it evidently claims the originality of this having been one of the first specimens of regular architecture in the country." James Gandon is well entitled to speak, although the little literary labour he executed falls far short of the genius he displayed with the pencil. We have a view of the Old Tholsel of Dublin as it existed in the last decade of the eighteenth century before us, and although the design is not above criticism, it would not be unworthy of Jones or Wren. In a word, we dare to add that in many of its features it is a Wren-like structure, inferior perhaps to many of the great architect's creations, but superior to some, Temple Bar and one or two of the City churches included. We agree with James Gandon in his belief that Inigo Jones was not the architect of the Royal Hospital, taking into consideration the period assigned, and the date of the architect's death. We point, therefore, both to the Royal Hospital and Old Tholsel of Dublin, which existed opposite Christ Church Cathedral, as the work of Sir Christopher Wren. Both buildings exhibit in their design and construction many similar features that are to be found in connection with Wren's edifice. Sir Christopher Wren, if not very fond of, was certainly not adverse to, statuary or statues. St. Paul's and some of his other buildings display his taste in that respect, and in wood-carving as well. If Sir Christopher Wren passed into Ireland, Grinling Gibbons seems also to have followed in his wake, for we have splendid Irish oak carvings and elaborate

stucco work at the Royal Hospital in Dublin as we have elsewhere, where the architect of St. Paul's and the clever Dutch carver have been. In fact, the carvings at the Royal Hospital, Kilmainham, have been long attributed to Gibbons. In Malton's "Views of Dublin," published in London, 1794-6 the Tholsel is described; and, while it is admitted, "notwithstanding its present Gothic appearance and incongruity with the generally received rules of architecture, it is even at this day, in the opinion of the artist, a picturesque object. . . . Its ornaments are in singular but bold, masterly style, and with the statues of Charles II. and James his brother, which are very good and in perfect preservation, have a pleasing and not unhand-some appearance." These statues have been preserved from destruction, and may be seen inside Christ Church Cathedral. They formerly occupied niches similar to the niches at Temple Bar, on either side of the central windows over the portico of the Tholsel. When we remember what was thought of Gothic architecture, and how it was described by writers in the last century and early in the present, we do not wonder that the Dublin Tholsel was described as having "a Gothic appearance and incongruity," but on looking at the only engraved plates of the building we have, or that we believe exist, we fail to discover how it could be described as a kind of Gothic edifice. The form of the building was nearly square, 52 ft. in front by 68 ft. in depth. It had a main entrance, semicircular-headed, under a portico supported by two Roman Doric columns, one on either side of the ascending steps. Two other circular-headed openings, corresponding in height and character with the main doorway, one on either side, are shown, each of the three arches being faced with architraves springing from impost mouldings, the said mouldings being continued across the front and jambs. Thus the bottom or ground storey was divided into three apertures or openings looking into an open hall. This open hall was spacious, and within it sprang four columns (similar to the two without), which supported the floor of the upper storey. On either side of the circular-headed window in the upper storey were two square-headed ones, the niches with the statues being placed between the inner one of these and the central window. The central window and companion niches were each flanked by pilasters and surmounted by architraves, the impost moulding taking the circuit of the niches. The incongruity consists in the somewhat odd assemblage or block of members packed upon the capitals of the outside columns, and the heavy entablature or cornice that is made, with the addition of consoles or scroll blocking, to support the projecting balcony over the main entrance.\* There is a balustrade to this of open work, with something like the city arms in the centre. The Royal arms, lion and unicorn, crown the top of the building. The building, notwithstanding some incongruity of detail, is really picturesque. It might be uncharitably supposed, from a first sight of the old building as it exists on paper, that the columns were got out too short, and the finish over the main entrance was a matter of necessity with the builder, whoever he was. Be that as it may, we are strongly inclined to believe that the Tholsel was designed by Sir Christopher Wren, and modifications occurred as the building progressed.

Returning to the Royal Hospital, Malton, in his "Views," gives us an engraving of the north front. The north front is the principal, and, unlike the style of the rest of the build-

ing, which is of brick, two storeys, with a third in a very high roof. This front is of stone, but of common rank, except the ornamental portions. It exhibits a projecting centre, decorated with four Corinthian pilasters and pediment. It has a doorway, also adorned with pilasters and a semicircular pediment, displaying above it the arms of the Duke of Ormond, and on either side of this is a large arched window. From this centre rises a steeple, betraying some of the features of Wren's steeples, the lower storey of which is a square tower, with an arched window on each side, covered with a heavy entablature, and an urn at each angle. The second division is of less diameter, which contains the clock. The whole terminates in a short spire, with ball and vane. The sides of the building have large circular-headed windows, nearly the height of the walls. The gallery within, which leads to the chapel, runs along the south side of the hall, and is supported by brackets of carved oak, representing various figures as large as life. The ceiling here is very massive, divided into three compartments, the central one being occupied by the dial of a clock, about 10 ft. in diameter. The chapel of the Royal Hospital is extremely imposing. The large east window is ornamented with painted glass, and underneath there is, or was, a communion-table, beautifully carved, stated to be of Irish oak; and here there is a coved ceiling, divided into compartments, showing some of the finest stucco-work to be found in Ireland. To cut short our description, we will merely add further, that the whole pile is 306 ft. long by 288 ft., with an interior courtyard 210 ft. square. This is surrounded on three sides and part of a fourth by a piazza, 13 ft. wide, formed by fifty-nine arches, affording a covered passage to the dining-hall in the centre of the north front. The hall is 100 ft. by 50 ft., and has the lower half of its walls wainscoted with oak. The Royal Hospital contains between twenty and thirty full-length portraits, including several monarchs, viceroys, chancellors, chief justices, and primates, from the founders down through a series of years in its history.

We have entered into some details concerning the style and decoration of these two Dublin buildings, because the general English reader is but slightly acquainted, if acquainted at all, with their history and architecture. One can no longer be seen or examined, except in print; but the other exists still, and is worthy of an examination in this respect.

#### NOTES FROM THE WEST.—III.

##### A RAILWAY OR TRAMWAY IN SOUTH MAYO.

THE best lands for the agriculturist; the loveliest and wildest landscapes for the tourist and artist are left unexplored, simply because there is no more rapid mode of transit than what the Irish jaunting car affords in this neglected part of "fair Ireland" up to the present time. I met an old school-fellow and professional friend at one of the hotels here a few days ago on leave from India, with a basket filled with Gillaroo trout, weighing from seven to one and two pounds each, which he had just landed from the neighbouring waters of the "broad Lough Mask." This trophy of my friend's day's angling would drive into ecstasy the followers of Isaac Walton on the other side of the channel. Apart from the success that attends the skilful angler in those waters, the scenery is truly magnificent and gorgeous. Creagh, now the estate of Captain Knox, possesses some fine views of the western shores of Lough Mask—finer than any other in the numerous lakes of Mayo. Curramore, the seat of Mr. Martyn, in like manner. Lough Mask Castle, belonging to Lord Erne, presents excellent glimpses of the bold and uneven hills and mountains of Joyce's Country and Connemara; and at the extreme southern angle of the lake we come to the estate of the prince of good landlords,

\* From the *Builder*.

\* It might be more critically correct to say that a species of Ionic frieze is planted over the abacus of the Roman Doric capital, the members of the cornice being the only portion of the entablature carried across. The cornice is also continued in the main building, acting as a string-course between the ground and succeeding storey. A second look at the engraving reveals the fact that an alteration must have taken place between the date of the building and the published sketch, as two of the square-headed windows show mullions and a transom, while the two on the opposite side are the ordinary modern sash-lights. A similar cornice to that alluded to is continued across the top of the building, acting as a string-course between the blind attic storey or panelled parapet acting as such.



Sir A. Guinness, at or near Fairhill. Here we enter Joyce's Country—the sentinels of the Western Highlands, the Nine Pins, on the right-hand, giving us a foretaste of the sublimity of the mountain scenery of Connemara. From the picturesque demesnes of Rosshill and Ballycurraun we get fine views of Lough Mask and the Partree Mountains, melting away nor-westward till they are lost in the embrace of the Reek, or Croagh Patrick. The country from here to Claremorris, though partially cleared of its superabundant population, still brings a goodly share of its

..... "bold peasantry, their country's pride"

to the fine markets of Ballinrobe, there being no other town in the west having a larger or better market for cheapness and the superior qualities of its meat, fish, and potatoes. The former was selling last market day from 5d. to 7d. per pound; prime mountain mutton as low as 4d.; potatoes, 3½d.; oats as low as 1½d. per stone; oatmeal and wheat straw 2s. 4d. to 2s. per cwt.; hay, 30s. per ton. It will be asked is this country longer to be shut out from the rest of the world from railway or tramway communication? I say, No!

In my last communication I noted briefly some of the landed gentry residing amongst us, but neglected enumerating the following, for which I beg here to apologise:—Mr. Tighe, J.P., the Heath, Claremorris; Mr. Lysnday, Hollymount; Mr. Kenny, Ballinrobe; Mr. Gillea, Garracloone; the Lords Kilmaine and Erne—of such are our landocracy composed. The middle class is the bone and sinew of the district, and may be said to be comprised in the following, viz.:—Mr. Simpson, Clonacastle; Mr. Willis, Hollymount; Mr. Moran, Cong; Mr. Duffy and Mr. Morris, the Neale; Messrs. Hearne, Walsh, Monahan, Kelly, McDermott, Kil Kelly, Valkenburgh, Daly, Stanners, Quin, Egan, M'Govern, Donellan, Ronan, Bermingham, Gibbons, Livingston, &c., Ballinrobe. Of such men the wealth and influence of this community is composed. Will they allow themselves longer to be placed outside the pale of civilization? The French people are said to be behind the age as colonists, yet in a small village or municipality not larger than Cong they voted £50,000 to a line, of which I was the principal engineer, fifteen years ago. This was in the Dominion of Canada; the railway was the North Shore or Quebec and Montreal, direct; the municipality was that of Machiche, about seventy miles east of Montreal, on the north shore of the St. Lawrence. Will we act like these French people now? First, a public meeting in the court-house should be called, then a secretary nominated, and bye and bye the fruit will blossom—the seed of these imperfect sketches will spring forth in the advent of the Claremorris and Ballinrobe Railway.

J. N. GILDEA, M.E.M. I.C.E.  
Ballinrobe, 3rd Oct., 1874.

### THE COLOSSEUM OF ROME.

THE annexed particulars of the Colosseum, and of the excavations now being carried on have been furnished by a correspondent to the *Times*. It will be found of interest to non-professional as well as professional readers:—

The excavations in the Colosseum have now reached a certain degree of completion, and far exceed in general interest any of the important works of exploration which, since the commencement of this century, have restored so much of the remains of the ancient city to light. It is scarcely an exaggeration to say that what is now being revealed excites as much wonder in all who look upon it for the first time as the building in all its integrity did in the Saxon pilgrims when they burst forth with the well-known exclamation recorded by the Venerable Bede. But it is no mere massive foundation which has been laid bare; it is no less than twenty-one feet of the interior of the edifice itself—buried till now under a mass of accumulation—which has been restored to light, and with it much is made clear that has hitherto puzzled both the learned

and unlearned alike. Until now the Colosseum has been an unsolved riddle in many respects. We knew that it was built for the exhibition of wild animals, as a place where they could be shown in numbers to the people, and where they could be hunted and made to fight with each other or with men; that gladiatorial shows on an enormous scale were given here, and that many martyrs testified with their blood on the arena. The range of seats rising one above the other could be fully recognised, utterly ruined as they are, and the admirable arrangement of the 80 different flights of steps, intersecting, and not yet interfering with each other as they conducted to the seats, could be perfectly understood. But how were the animals brought into the arena? Where were they kept? What was the stage of mechanism of this enormous Amphitheatre? These are questions asked by all, but which have never been answered except by imperfect explanations founded on conjecture. We may accept the explanation that the animals were kept in great *vivari* on the Cælian and near the Porta Maggiore, but that they were brought thence into the Amphitheatre in cages was far from satisfactory. At the beginning of this century extensive excavations were made on the arena, but with no other result than to increase the difficulties they were intended to remove. Immediately beneath the modern surface a network of walls was found intersecting the area in various directions. Some maintained that these were constructions of a late period superimposed upon the arena, while others insisted that they were subterranean, and formed the dens in which the animals were kept and the corridors through which they were introduced upon the level above. A furious controversy was carried on, but as the construction of the Roman buildings was a subject then but imperfectly understood, no authoritative conclusion was arrived at; and as the place during the rainy season got flooded with water, which remaining stagnant and slowly evaporating, became a cause of unhealthiness to the city, the excavation was filled in again in 1813, after having remained open for about ten years. Some months ago Signor Rosa determined to make another attempt to clear up the mystery. No sooner had he set his men to work than a loud cry of pious horror was heard. A sacrilegious Government, hating all holy things, had dared to disturb the ground sanctified by the blood of the earliest martyrs. But Signor Rosa was firm in his opinion that the spot made holy by the blood of the martyrs lay hidden, like many other truths, beneath a heap of modern rubbish venerated in its stead. He continued his work regardless of remonstrance, and now, 21 ft. below what has so long been looked upon by many as the arena, he has discovered its veritable level paved with *opus spicatum*, or herring-bone work, and leading from it a series of enormous corridors, with immense chambers, where the business of the Amphitheatre was prepared—the "behind the scenes" in fact. He has gone deeper than the first excavations were carried, and it is now evident that they were confined to the ellipse within the Podium. It was generally supposed that the low wall at the back of the "stations" which were erected in the middle of the last century was the front of the Podium; but it is now found that those stations stood on its level, that the wall behind them was the back and not the front, and that a platform 3 metres 70 centimetres in width extends from it to the edge overlooking the arena seven metres below. From the front of the Podium, at about two-thirds down to the level of the arena, a series of gigantic brackets of travertine project at regular intervals, and evidently extend along the entire circuit. On clearing the front of the Podium down to the level of the arena, at the end of the larger axis of the ellipse towards the Lateran, three great archways were found, opening under it from the arena, but completely filled with an accumulation of solid clay, such as would be deposited by an inundation of the Tiber. Exploration was then commenced through the side archways, and they were also found to be the openings of corridors radiating from that in the middle, to the length, however, of only 24 metres when they turn at right angles, the one to the right, and the other to the left, and communicate with the long corridor between them; the plan being that of a blunt wedge with the end towards the arena, or of a dovetail with the end from it. I may remark here that the floor of the side corridors is on a level with the arena, while that in the centre is about one metre higher. Signor Rosa is of opinion that these side corridors were, so to say, the docks for the galleys used in the naval shows, and that the sockets were to hold upright posts to which they could be moored and kept erect till there was sufficient water for them to float. Considering, however, that in each corridor of 24 metres in length there are six of these sockets, at distances apart gradually lessening from 4 metres

80 centimetres at the opening to 2 metres 50 centimetres at the end, this can scarcely be possible; and I am inclined to think, as the sockets have all the appearance of having been made for pivots to turn in them, that they mark the positions of swing gates, which, when closed, formed so many pens, one behind the other, from which groups of animals could be let loose in succession on the arena; that the animals were brought through the long central passage, and by the side communications into the lateral corridors as far as the first gate, which was closed; that having been driven up to this, the second gate was closed upon them; that others were then led or driven in, and the third gate closed, and so on to the sixth, and that these gates were swung open in succession at the proper times for letting the beasts loose on the arena. This could be done with ropes, or a man forcing one corner of the gate back to let the animals escape by the other, could take shelter behind it as it revolved. As I have mentioned, those corridors were filled with solid clay, no doubt deposited during inundations of the Tiber, the water washing back through the *cloaca*, as it does now when the Pantheon is flooded, and, from these great bronze sockets being *in situ*, and no holes having been made in the walls here, as in the upper part of the building, to abstract the metal clamps, it is evident that this portion of the Amphitheatre must have become covered with deposit at a comparatively early period, possibly also immediately after an exhibition of animals had been given, and before all the bodies of those slaughtered had been removed, for a number of bones of wild beasts were found in one of the corridors.

There is no longer any difficulty in understanding all the details connected with the spectacles given in the Amphitheatre. The enormous openings yawning upon the arena give a vivid reality to the descriptions of the scenes once enacted within these walls; but little imagination is now wanted to re-people the ranges of seats with the mighty concourse which once filled them or to appreciate the intense, the breathless expectation with which as the boys who scattered the sand left the arena the 87,000 spectators listened to the echoing roars of the animals and watched the mouths of those weird tunnel-like corridors for the first actors to bound upon the scene.

### AN ESTIMATE OF FOLEY.

In an article in a recent number of the *Builder* entitled "The Eventful Lives of Artists," the following concluding appreciative passage occurs concerning our late deceased native sculptor and countryman:—"We would not, therefore, have the labelled dust of a great sculptor stowed away in the eastern corner of the crypt as the remains of an 'uneventful life'; his was not only eventful by the production of the fine works of which every one within the last few weeks must have seen a list, but in those struggles which the soundest men in the country have to experience. The fact is, the world rails against the persecutors of men who worked for truth's sake of old; but they in turn become the neglectors and persecutors of the truth-seekers of to-day. The truth is not so readily recognisable as we are apt to think. Truth has lain at the world's feet for thousands of years, and yet how little of it has been garnered. The world does not know the right thing when it sees it; the crowd looks for glitter, and, in pursuing this, runs over and tramples down the real thing. Thus it was that Foley's talent was long overlooked. He had, therefore, like other men of genius, to struggle against the ignorance and stupidity of the public, till a rift came in the clouds, and then the dear old England of extremes heaped commissions upon him, and we shall not be far from the truth if we say, crushed the life out of him, killed him with kindness. His works will be amongst the most important events of our time, amongst those events by which posterity will be able to form a favourable judgment of our state of cultivation. Reader, give a thought to the pains and penalties endured by men who care for the *status* of England. Foley's desire to produce noble and conscientious work earned him a tomb in St. Paul's, as his steadfastness, truthfulness, and kindness obtained for him a place in the hearts of all who knew him."



## THE LATE DUKE OF LEINSTER.

AUGUSTUS Frederick Fitzgerald, third Duke of Leinster, died at his residence, Carton, Kildare, on Saturday last. He was born on the 21st of August, 1791, so he was entering on his 84th year. With the politics of the late Duke we have nothing to do in this journal, but we cannot close our eyes to the passage of such a prominent personage from our midst, without a passing word. In his character of an improving resident landlord and social reformer, the late Duke is entitled to be remembered by his countrymen. His services to the agricultural interest are well known in connection with the late Peter Purcell and Daniel O'Connell, and not less was he an advocate for national education. The older he grew the more deeply he felt for the condition of the Irish tenantry, and in connection with his own estates he initiated through his agents desirable reforms. The passing of the Land Act of 1870 led to his changing the form of the lease on his estates. This action led to some excitement and ill feeling on the part of tenants who cared not for improved dwellings, and because their fathers lived in disgraceful hovels, with dunghills before their doors, preferred to live on as their fathers did. It was no easy task to reform the ways of our agricultural labourers and tenant farmers, and train them up to new habits of order and self-respect, by placing sanitary requirements in their possession. The late Duke and his agents succeeded at last, and we trust that the reform that has been initiated will be followed up by the present Duke, and the example will be imitated by other resident and non-resident land owners. The political biography of the late Duke may be read of elsewhere, and the history of his family is full of noble and daring incidents. Here we have considered him in the light of an improving landlord and a practical benefactor, one of the truest forms of patriotism.

"Be his epitaph writ on his country's mind;  
He served his country, and loved his kind."

RE-MODELLING OF  
RATHMOYLE HOUSE,  
CO. ROSCOMMON.

THE plans for the extensive alterations and the additions to the above, which is the residence of Major R. Irwin, and which for the past two years has given employment to no inconsiderable number of workmen, have been supplied by Mr. Kempster, architect, Ballinasloe, and the various building operations superintended almost from the commencement by Major Irwin himself, who at considerable expense employed Dublin workmen at the highest wages to assist in the undertaking.

Rathmoyle is situate about six miles from the thriving town of Castlereagh, in the neighbourhood of the noted caves of Ratheraughan, and the burial-place of the famous King Dathu, whose deeds of daring in battle are the continuous theme of local admirers, and even of bards of no mean pretensions.

Major Irwin's handsome seat (which might be termed a villa residence) stands about a quarter of a mile from the high road, in the midst of well laid out groves, planted, it is said, by his father, whose name is always spoken of by every one who knew his worth, with the highest respect as being a good man and a most indulgent employer. The building, which possesses all the appearance of a well-planned structure, is three storeys high, and occupies a frontage of about 70 ft., having dining and drawing-rooms upon the ground floor at either flanks. The flanks and front are finished in cement in the very best style, and the principal entrance door is placed to the east of a handsome porch in the centre of the building, with the view of sheltering the grand hall from the south-westerly winds that blow so continuously in these parts. The drawing-room, which is a model of taste, is lighted by a wyatt and bay windows, with chiselled limestone mullions, and the latter commands a view of the garden, which is bounded by a concrete wall, and kept in the

very best style of modern taste and excellence. When we heard that the laying out of the pleasure-grounds and the planning of the vinery owe their existence to the mind of the lady of the house, and that to her taste and judgment Major Irwin is indebted for the correct execution of many a detail of the building during the progress of the work, it confirmed us in the opinion, which we have entertained for a long time, that from the erection to the furnishing of a house, females have generally a superior taste; and if the architect were left to deal always with the lady in the first instance, his plans would have a better chance of escaping the criticism of dull visitors, and his ideas in consequence get a fairer trial. Women exercise the faculty of decision in their tastes more than men; and we seldom failed to find one who was not superior to the male sex in the conception of useful contrivances, having for their objects both comfort and convenience, to say nothing of artistic beauty of design and superior workmanship in the execution.

The names of the several establishments with which Major Irwin has had dealings are a guarantee that the materials and workmanship supplied are of the very best quality, and also prove that nothing approaching the jerry builder's wares has entered his house.

Mr. George Moyers, one of the leading builders of this city, has supplied all the joinery; and one of the best tests of its excellence is the fact that for upwards of six months it has been exposed to the draughts of the building, and in some places to the summer's sun, without a single coat of paint and without any opening of the joints being observable. Few of the joinery works we know of (established for the convenience of gentlemen who prefer to superintend the building of their own dwellings) have the advantage of a practical builder at their head, and where this is not the case, overseers paid by percentage on the profits, and joiners compelled to work by the piece, can do as they have a mind, particularly where quantity and not quality is the main desideratum. Where a joiner is compelled to make two double-moulded four-panelled doors, or a pair of twelve-pane sashes with frame and casings complete in one day for the sum of four shillings to four and sixpence, the intelligent reader will at once conclude that such articles are of the real "jerry" description. To be sure, it will be said, he has the aid of machinery, but some machines used in the manufacture of joinery merely amuse the workman, while they execute the work in an inferior manner. For instance, it is absurd to employ a machine to "try up" the stuff of a door, and when it is laid on the joiner's bench to see it retain every lump and twist which it possessed on leaving the saw. The "trying up" of the wood is the first and most essential process to the correct execution of a piece of joinery, and no machine has yet superseded the hand plane.

Messrs. Hogan and Sons, Great Brunswick-street, were the contractors for the plastering; and to the firm of Messrs. Sibthorpe and Son was entrusted the tiling of the grand hall, together with the supplying of the Aberdeen granite columns required to support the walls of lantern light over grand staircase. Messrs. Ross, Murray, and Co., were the contractors for the plumbing. Nearly every floor in the house is composed of well-seasoned pitch pine, as is also the principal staircase; and to the credit of Major Irwin, and for the gratification of carpenters, it may be said that not an inch of white deal would be allowed on the premises.

We have heard that it is the intention of Major Irwin to make further improvements by the addition of out-offices to his dwelling, and the erection of comfortable cottages for some of his employes. In giving possession to a ploughman or a herd of a neat slated cottage or gate lodge, it should be exacted from him that within and without the house should be kept clean and free from the traffic

of pigs and poultry; and if supplied with a back yard, cow-house, piggery, &c., it should be understood that these should be swept at least once a day, and the manure heap placed at a proper distance from the dwelling.

In too many instances when a comfortable cottage is given to an Irish labourer, he either allows stagnant water to remain at the threshold for the benefit of the ducks, or thinks he has a right to dig a hole "fornint" the door (if none existed) in order that his geese may dabble immediately under his eye. Too often have we entered such dwellings and found them as untidy, not to say filthy, as ever mud cabin was, and very often heard the inmates complain of the tyranny of their master, while their leisure time was spent lobbying about and prating of his wealth and their scanty pay, instead of taking a broom in their hands to sweep the dirt from under their feet, or clean the windows of the house which his concern for their comfort put them in possession.

JEAN DE VEY.

THE NEW LIFFEY PURIFICATION  
SCHEME.

MESSRS. Price, Cotton, and Palles have reported upon all the plans submitted to them, fifty-seven in number, none of which, according to their opinion, would answer. They have submitted a plan of their own, at a cost of about £160,000, and of £30,000 for a catchment reservoir, on Bateman's plan, at Ballysmutten, near Blessington, for flushing purposes. What they propose to do is to bring the sewage through intercepting sewers to two reservoirs on each side of the river—one at the Pigeonhouse-road (south side), and the other at the lower portion of the East Wall, adjoining Messrs. Goulding's works; to be thence carried out to deep sea by the tide, which they say will effectually accomplish the intention. The intercepting sewers are to be brought down the quays from Kilmahinham. The northern one it is proposed to pass down a portion of the quay and through Henry-street on to Newcomen Bridge, and thence down to the East Wall, which bounds one side of the new dock. In other points, Mr. Neville's plan for the Poddle River is approved of, and also Mr. T. D. McCarthy's arrangement for storm-water. Dr. Faussett's, of Clontarf, plan of utilising the sewage by passing it through peat is also favorably mentioned.

When are we to have the detailed report, and when, and oh! where, will the active operations be first commenced? Will there be loans needed, and another new bill before that?—Eh!

## TO CORRESPONDENTS.

H.B.—We cannot say if the office you name is *bonâ fide*. The terms are annual, payable in advance, and it is currently reported that there is an assistant employed in it who was for twenty-six years in the employment of the Gas Company.

THE NEW SANITARY BOARDS.—All the union boards in the rural districts are constituted sanitary boards under the Irish Health Act. If there be any exceptions, or a desire on the part of any board to alter its position, it must comply with the conditions of such change as provided by the Act.

A POOR-LAW GUARDIAN.—Of course your board may hold over the question of the remuneration of its sanitary officers for a definite period, but we can see no good to be obtained by such action. The order will eventually have to be complied with; and, if there be a neglect of sanitary duties through inaction, the ratepayers will have their remedy by a requisition.

ARMAGH.—The above answer will, in part, serve your case. Young dispensary officers are not, in many cases, eminently fitted for the duties thrust upon them. The Act, after all, is but tentative; but it is nevertheless compulsory.

ABBETLEIGH.—The Thurles resolution could never be subscribed to. The Local Government Board, although not the Government *de facto*, are delegated powers, and they certainly will not stultify themselves. We fear the motives which actuate the guardians in question do not arise from the sole desire to serve the ratepayers' pockets, but to protect their own.

LIVKAGH (Newry).—The matter is treated elsewhere in these columns.

A. M. (Belfast).—We have little doubt that boards in Belfast will proceed at once in conformity with the provisions of the Irish Health Act, notwithstanding its defective clauses, and the confusion that will likely take place.

A CARPENTER.—Make a cardboard model, or, if you have time and taste, one of wood on a small scale. You will learn more in one month by this practice than in six by a study of the diagrams on a flat surface.

C. E. (London).—Thanks for the information and the promise.



## NEW WORKS IN BELFAST.

THE foundation-stone of the new Catholic Hall has been laid. The new hall is intended to serve all the purposes of an institute. It will comprise reading-room, public library, billiard, and class-rooms, schools to accommodate upwards of five hundred children, and accommodation also for Young Men's and Ulster Catholic Associations. There will be a minor hall for general purposes, and the great hall is intended to accommodate four thousand persons. Mr. Alex. M'Alister is the architect, and Messrs. James Ross and Son the builders.

The new schools built for the Christian Brothers have been opened in this town. The local press describes the building as a substantial one, with an exterior "elegant in appearance, and the front, or end, towards Oxford-street very handsome and artistic in design." The two school-rooms are capable of containing three hundred pupils. Mr. A. M'Alister is the architect, and the contractors Messrs. Rooney and Mooney. The inscription on the face of the building perpetuates the name of the late Mrs. Magill, the foundress of the schools.

WATER SUPPLY  
AND SEWERS OF PARIS.\*

OF all the measures carried out of late years in the capital of France, none are so unquestionably valuable as the increase of the water supply and the construction of the sewers. The debates and reports of the municipal authorities set forth the extent and value of these important works.

The water service and the sewers have been, and still are, under the direction of M. Belgrand, Inspector-General of Ponts et Chaussées, and member of the Academy of Sciences.

The sum required for the water service next year is equal to £250,049, being £9,600 less than the expense in the current year.

The potable water of Paris is derived from the Seine and two other sources, while the watering of the streets, the supply of the public fountains, and the general cleansing, are effected by means of the waters of the Ourc, which are totally unfit for drinking or cooking.

Another source is that of the artesian wells, but their cost is found to be so great that their further adoption is questionable. There are, however, at present in hand one at the Place Hébert, another at La Chapelle, and the third at the Butte-aux-Cailles.

The two sources of pure water for the use of Paris are those of the little streams of the valleys of the Dhuis and of the Vanne. The waters of the former have now for some years been received in an enormous reservoir, and the canal and reservoir of the Vanne are approaching completion.

The reservoir of the Vanne at Mont Souris, just completed, is an enormous structure of two stages, arched over and covered with turf. The cost of these canals and reservoirs has been very large, but the water supply brings in a considerable revenue, and will shortly bring in more. The income from subscriptions within the city, and from a company formed to supply water in the communes without the wells, is estimated to produce £280,000 in 1875, while certain other items add £20,000 more to the amount, and gradually as the supply of water to the houses becomes general, and as cesspools give way to water-closets in connection with the sewers, the income from this source will increase largely.

Much more remains to be done before the system of sewers is complete. The great *égout collecteur*, or main sewer, was one of the sights of the empire, and the work has been pursued, though not continuously, for twenty years. Still many small streets in the old parts of Paris have connection with the new system of sewers, and most of the secondary streets of the suburbs have no other sewer but

the gutter. Each year adds some miles to the length of the sewers, but the work cannot at present be pushed on rapidly on account of the heavy demands on the finances of the city. The budget for the coming year includes no important sewer work, but the sum required for the maintenance of existing sewers is £100,000. This also includes the maintenance of a small stream, which curiously represents that of the Fleet in London, namely, the Bièvre, which has been converted into a sewer. The products which do not find their way into the sewers are carried away to La Villette and Bondy, and, with payments on account of public and private sewers, &c., produce £50,000. This service includes also the application of a considerable amount of the sewage of Paris to the cultivation of the market gardens of the plain of Gennevilliers.

## SANITARY AND OTHER NOTES.

THE state of transition which our corporate and local bodies are now undergoing, in consequence of the provisions of the Irish Health Act, has put a stop in a measure, for the time being, to active sanitary work. It is not desirable to re-produce in these pages the wrangling debates over the new Act, in the different boards throughout the country. In a general way we have spoken elsewhere of the central and local sanitary authorities.

The Public Health Committee of the Corporation of Dublin have held their first meeting under the new Act, and have exhibited an amount of assurance quite characteristic. Mr. Robinson, of the Local Government Board, was present. The following resolutions were unanimously adopted, viz.:—"That we are of opinion that the present arrangement in reference to the employment of members of the police force as sub-sanitary officers of the city of Dublin ought to be continued, and that the present scale of their payment should be adopted; and that other sub-sanitary officers should be appointed for diseased meat, milk, &c., inspection and discovery, and disinfection of houses, clothing, &c. That the sub-sanitary officers should have power to serve immediate notices for abatement of nuisances, and report directly to this committee without any delay or intervention of any other officer; but that in special cases where necessary, the committee will direct inspection to be made by one of the medical sanitary officers; and in all cases where those sanitary officers in their visits to the houses of the poor for medical relief or attendance, or otherwise, shall discover any matter requiring their notice as sanitary officers, they shall report same without delay to this committee. That we are of opinion that we should appoint one executive sanitary officer, who should have the qualification of a sanitary engineer. That we are of opinion that we should appoint two medical superintendent officers of health, one of whom should be a practical chemist, and act as public analyst of the borough, the other to be a consulting officer of health. That a list of the sanitary staff, with their salaries, emoluments, and duties be forwarded to the Local Government Board; and that a verbatim copy of this day's proceedings be also forwarded for their information. That the Local Government Board be requested to sanction the continued employment of our sanitary staff at their present rates of salary from 5th day of October, until such time as the arrangements for appointment and employment of the new staff shall have come into operation. That the meetings of this committee be for the future held on each Friday at one o'clock." The proverbial saying of the Three Tailors of Tooley-street, "We, the people of England," could never come up to the above resolutions.

The sum total of the sanitary and other work at the present moment being performed by our new sanitary boards is *nil*. Each and all of them pretend that they have the interests of the ratepayers at heart, that the new Health Act is all "humbug," and that

the army of new doctors are but an army of locusts preying upon the vitals of the people. Nero fiddled, it is said, while Rome burned; and our newly constituted sanitary boards will, we fear, keep on wrangling till an epidemic in their respective districts kills off a large portion of our population.

## CORRESPONDENCE.

RECENT EXCAVATIONS AT  
GREY ABBEY.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—As archæologists have latterly had their attention very much turned to our abbey by the very beautiful monograph of Mr. Phillips, it may not be uninteresting to such of them as read the *IRISH BUILDER* to learn what has been done within the past week, at his suggestion, and under his direction, to discover the foundations of the western buildings, of which, as every intelligent visitor to the ruin will remember, no trace was to be seen above ground. I am happy to be able to say that owing to the zeal of Mr. Phillips, with the generous permission of Mr. Montgomery, whose mansion the abbey adjoins, the entire foundations of the west wall of the cloister garth have been laid bare; also, the remains of one or two intersecting walls, and patches of rough pavement. What buildings these remains may have been connected with cannot be said with certainty; but it is thought they belonged to the "*Domus Conversorum*," or lay brothers' building, which usually stood on the western side of the cloister garth. The foundations are more than 3 ft. thick, and the pavement is composed for the most part of unhewn land stones of considerable size.

In 1843 excavations were carried on, under the direction and supervision of Lieut.-Colonel Montgomery, in the chapel, sacristy, chapter house, frater, and dining-hall, during which many of the low walls now visible were brought to light; but nothing in the way of systematic excavating was ever before tried within the garth, or adjoining it, as has at present been attempted on a limited scale. To make any work satisfactory the entire sward would have to be removed for yards on each side of this wall. In 1843 but little was known of conventional arrangements, and but little interest attached to excavations compared with what attaches in these days when almost every detail of monastic houses and manners is known.

Mr. Montgomery has kindly consented to allow the trenchings to remain open for some time, so that any person interested may have an opportunity of seeing what has been uncovered.

I may say, before closing, that the scantiness of remains on the western side of the garth may be accounted for by the circumstance, according to the statements of old men in the neighbourhood, that early in the present century stones were carted from the abbey for buildings in the village, and, it is said, also at the mansion.—I am, yours,

Greyabbey, 1st Oct. ROBERT JEFFREY.

## WET OR DRY GAS METERS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—Permit me, through your columns, to inform consumers of gas that there has been an alteration made in the internal construction of wet meters, by the addition of an overflow pipe (by which the legal water-line is controlled) independent of the gas syphon pipe, which for a lengthened period acted as an overflow pipe as well as a conductor of gas to the interior of the measuring drum wheel. Under this arrangement, after the water has been raised in the meter to the legitimate level in the usual manner, a specified bulk of water can be added without surcharging it, thereby diminishing the measuring space of the drum wheel, to the loss of the consumer. Loss in this way can be prevented by consumers, after their meters have had a fresh supply of water, removing the bottom water-plug and allowing the surplus water to run off. I am not aware of any such meters being in use as yet in the Dublin Gas district; but consumers would act wisely, when getting gas meters into their houses, by refusing to have wet meters, and insisting on dry meters being supplied to them.

Every gas consumer must have observed that the gas bills presented to them for payment this year were remarkable for the absence of the usual annexed diagram and explanations, by which consumers were not only instructed how to read their meter indices, but also how to replenish their meters with water. Though it was well known that economy was necessary to bring the affairs of the Gas Company to a healthy state, still it has been a matter of surprise to many why the extra cost of the paper

\* From Journal of the Society of Arts.



on which these instructions were given was deemed necessary by the management of the company to contribute in effecting that object, and no person can believe that the saving of such a trifling sum *alone* influenced this company in withdrawing from consumers these instructions, and the most important salutary caution for the prevention of accident which was also given along with them.

An office has been opened in Dublin "for the purpose of affording gas consumers the benefit of a periodical supervision of gas fittings, gas meters, and gas accounts." The proprietor of this *unauthorised* "Gas Meter Inspection Office," being aware, I presume, of the host of talent daily employed in Dublin at the trade of gas engineering, appears from his prospectus to be relying principally on the amount of service he can render his clients by the detection of incorrect gas meters, by comparing his readings of their meter indices with the bills furnished to them by the Gas Company, and in certifying "as to their correctness or incorrectness."

It is a sad reflection that the absence of competition in the gas meter trade, the combined action of the Gas Works and the Corporation—all linked together by the greed of gain or the ties of kindred—coupled with the ignorance of the people of Dublin on gas matters generally, are found to be sufficient to encourage in this city a speculation that in any city or town in England would almost be looked upon as an insult to the intelligence of its inhabitants.—I am, sir, your obedient servant,

JAMES KIRBY.

41 Cuffe-street, 13th Oct., 1874.

## HOME AND FOREIGN NOTES.

**THE NEW SANITARY ACT.**—Dr. F. J. Davys, F.R.C.S.I., writes to the *Medical Press and Circular* as follows:—"In my humble opinion the powers granted by the Act will prove utterly inert in suppressing the most fruitful sources of disease in rural districts. As long as lodging-houses can be crammed with the unwashed and weary strollers, and as long as such lodging-houses have not a yard or ere of even the length or breadth of an ordinary man, or any form of sewer from the house beyond a small and shallow one, which I have so often seen choked in the centre of the earthen-floored kitchen, through which it runs to the open channel in the public street; so long as the laws of the country will not enable the sanitary authorities to compel the owners of cabins to have them properly constructed, both as regards sewage and otherwise; so long, I submit, will hot-beds of disease be found in rural districts. I am not here theorising, but am speaking from a practical experience of many years of the causes of disease in country parts. If the law will not permit the "sanitary sub-officer" to visit any one of these hovels, the occupier may order him out; or if, on visiting it, and with the written opinion afterwards from the "sanitary officer" of the absolute necessity to have it put in a state fit for a human being to live in, and that the sanitary authorities cannot compel the owner of the house to at once comply with the suggestions of the sanitary officer, it becomes evident that the nestlings of disease in rural parts will remain uncrushed. I will hope to see a thorough sewerage system established by means of one deep sewer from every cabin leading into a central large one. Accumulations of filth surrounding these houses can be prevented, and thus indirectly the owners may be compelled to establish deep ash-pits. It might also be advisable to have a depot for disinfectants in every workhouse. The necessary disinfectants could be delivered at the several dispensary stations by the workhouse hospital patients' van. The latter would thus itself undergo a process of disinfecting which, I think, would lessen the great objection that poor people have to be conveyed by it to the hospital."

**LISMORE NEWSROOM AND MECHANICS' INSTITUTE.**—The first general meeting of members took place on the 21st ult., in the handsome building erected by his Grace the Duke of Devonshire in the Town of Lismore, County Waterford. The chair was occupied by the Rev. P. Byrne, P.P., who in his opening address expressed the very great pleasure he experienced in occupying the position he did that evening as chairman, and the honour conferred upon him in being elected President of their institute. He spoke at considerable length on the benefits such an institution would be to its members. It would be the means of keeping them away from many temptations, and afford them an opportunity of employing their leisure hours in reading and intellectual intercourse. He hoped that when they entered the portals of this building they would bring with them that clarity that has respect and consideration for the opinions of others; and that whatever difference might exist

among them, they would, in their intercourse here, avoid everything that could tend to hurt the feelings of their brother members. He trusted the institute would be availed of by all classes and creeds, and hoped they would not alone give their individual support, but induce others to become members of this excellent institution. Mr. L. M. Fitzgerald said it had become his duty, as the representative of the people employed by his Grace the Duke of Devonshire (and he felt proud of the honour conferred upon him), to propose a resolution expressive of their gratitude and thanks for his Grace's liberality in presenting this magnificent building, and to Mr. Currey for his kind and valuable assistance in bringing the matter so favourably before his Grace; and he might add that the members had it in their power to pay his Grace a greater compliment, and one he was sure he would think more of than this vote of thanks, and that was to shew by their conduct, unity, and proper working of the institute, their appreciation of his Grace's kindness. He would propose that Mr. Currey be requested to convey to his Grace the Duke of Devonshire the warmest thanks and gratitude of the members of the Lismore Newsroom and Mechanics' Institute, for his kind liberality in presenting to the town this handsome house and reading-room, as well as an annual subscription towards its maintenance. Mr. Foley, on the part of the inhabitants of the town of Lismore, seconded the vote of thanks. It was quite unnecessary (he said) for him to dilate upon the subject—it was well known to all that his Grace was foremost in promoting every good and useful work. The inhabitants of Lismore had every reason to feel grateful for the many benefits they have derived from him. Mr. Currey said it would afford him much pleasure to convey to his Grace the Duke of Devonshire the vote of thanks which had been proposed and seconded in such kind terms, and so cordially accepted by them who had met that evening in the new building erected for their use by the Duke. He need not tell them that his Grace always felt a warm interest in the promotion of anything calculated to confer benefits on those with whom he was connected, and he had at once most willingly consented to assist in establishing the institution which they were now inaugurating. A vote of thanks to the reverend chairman brought the proceedings to a close.

**BIG FIGURES.**—According to a correspondent of the *Cincinnati Enquirer*, who fully investigated the subject, the average receipts of the New York dailies for advertising amount annually to 8,908,000 dols. Of this sum the *Herald* receives upwards of 2,000,000 dols., or about 8,000 dols. a-day; the *Staats Zeitung*, 1,825,000 dols.; the *Times*, 1,460,004 dols.; and so on down to some of the most obscure sheets, none of which receive less than 100,000 dols. The weekly papers take nearly half a million annually as their share of the advertising patronage, and perhaps fully 5,000,000 dols. is spent in posters, circulars, steamboat and street car advertising, &c. The writer also shows whence this immense revenue comes, and quotes the following figures from the ledgers of some of the leading business firms:—A. T. Stewart, for instance, is said to spend 500,000 dols. a-year for printers' ink; Lord and Taylor, 225,000 dols.; Arnold and Constable, 175,000 dols.; Robert Bonner, 200,000 dols.; Babbitt, the soap man, 225,000 dols.; while Barnum pays out every year about 400,000 dols., and all have made their fortunes largely through this instrumentality.

**THE LATE ST. GEORGE SMITH OF DROGHEDA.**—A correspondent of a daily contemporary writes thus:—"A just tribute to departed worth in *memoriam* of one whose whole life stood out pre-eminent for good deeds, done without ostentation, which carried their reward to his own great heart, has just been erected in the form of a stained glass eastern window, in St. Peter's Cathedral Church, Drogheda, executed in the best style of your eminent citizen, Maurice Brooks, Esq. The window which is in the decorated Gothic style of architecture, consists of four principal divisions. Between the mullions, in the centres of which are placed large-sized figures of the Evangelists, two and two, at the sides, and midway, are, in corresponding figures, the great Apostles of Christianity, SS. Peter and Paul, the remaining intersections filled in with a handsome kaleidoscope pattern. In the Gothic top, surmounting the whole, stands the family crest and motto, while beneath is the simple announcement—'In memory of St. George Smith,' with dates of birth and death respectively. Never was there a more just tribute of affection to one, the memory of whom will live fresh with all who had the pleasure of his acquaintance." Referring to the above memorial window, the local *Conservative* says:—"The worshippers who attend this church will be pleased to learn that the scaffolding

which for some months back darkened the eastern window of the building has been removed, and that instead a brilliant stained glass window will meet their gaze. This window has been erected as a memorial to the late St. George Smith, Esq. At present we are not in a position to attempt a description of it, but we have been informed that it is beautiful in all its parts—being characterised by a good arrangement of scenes and colour, neat execution, and a pleasing effect, as a whole."

**THE CHANNEL TUNNEL.**—The actual position of this scheme at the present time is that the *projet de loi* has been prepared, and will be presented on the re-assembling of the French Chamber in November by the Minister of Public Works. Nothing further can be done until then to advance matters beyond their present position. To ascertain the nature of the chalk and other rocks through which the tunnel is proposed to be constructed, numerous soundings and borings of the sea bed have been made in a most ingenious manner by means of an iron tube, over which a hollow shot, fitting loosely, is raised and let fall upon a flange attached to the tube, the end of which is in this way driven into the substance of the sea bottom, the core thus obtained giving the required sample of the rock perforated. Some hundreds of these borings have been made, and a complete geological chart of the channel constructed from the data. These accurate details of the strata and their outcrops have enabled the most promising line of route to be selected, and which is accidentally very nearly that of the Dover and Calais Submarine Telegraph Cable. The line of the main tunnel, which is to be large enough for a double line of railway, is drawn straight from St. Margaret's Bay, South Foreland, to a point very nearly midway between Calais and Sangatte. In longitudinal section the proposed tunnel presents a slight fall of 1 in 2,640 from the centre towards either extremity, and the vertical depth of the highest point of its floor is 436 ft. from Trinity high-water mark, and 200 ft. beneath the sea-bottom itself. From the land levels of the existing railways the two approaches make long descents of over 4 miles, each with gradients of 1 in 80, into the tunnel ends, over 2 miles being under the sea, the total of the whole amount of tunnelling amounting to 30 miles. The greatest depth of water over the sea bed above the tunnel is stated to be 180 ft. The estimate for the entire preliminary works is, with all expenses contingent on their execution, something less than £160,000, including the two pumping engines, of 2,000-horse power each. The total cost of the whole tunnel and its accessories is, for the present, put at £10,000,000.—*British Trade Journal*.

An improvement on the original idea of the postal card has been carried out in Holland, Belgium, Germany, Switzerland, and Italy. It is to send to your correspondent the means for his replying to you immediately. If you direct the reply card, your correspondent has nothing to do but write the answer, separate the card, post it, and you get it. Naturally these cards are sold at double the price.

**EPPS'S COCOA.**—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame"—*Civil Service Gazette*.

## NOTICE.

*It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.*

*Correspondents should send their names and addresses, not necessarily for publication.*

*We shall be glad to receive from any of our readers notes of works in contemplation or in progress.*

*Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbot-street, Dublin.*

## RATES OF SUBSCRIPTION TO IRISH BUILDER.

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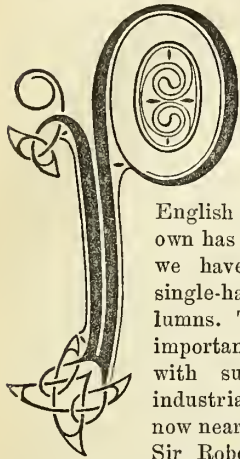
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# The Irish Builder.

VOL. XVI.—No. 357.

*The Reclamation of Foreshores in Dublin in the Seventeenth, Eighteenth, and Nineteenth Centuries.*



UBLIC attention is now earnestly directed to the reclamation of our foreshores and slob lands, and the

English Press as well as our own has taken up the subject we have ventilated almost single-handed in these columns. The subject is of deep importance, and pregnant with suggestiveness in an industrial direction. It is now nearly thirty years since Sir Robert Kane published his "Industrial Resources of

Ireland," which had the effect of waking up an interest in the neglected resources of this country, and leading to the formation of some English and native companies for developing them. Iron and coal mines began to be worked, and more turf was raised; and several manufactures, depending for their profitable working on the existence of a plentiful supply of these commodities, were also commenced. The occurrence of the terrible Irish Famine, and the fatal effects it had by driving thousands of the stalwart and skilled from our shores during some subsequent years, contributed to the collapse or cessation of several industrial employments which opened favourably, and would eventually, had not the exodus occurred, have proved highly remunerative.

Of late years, under the Board of Works and the Acts relating to land improvement, considerable reclamation has taken place through drainage operations inland; but, in connection with our foreshores, little or nothing has been attempted, except some harbour and port improvements, which navigation and shipping interests necessitated. The large expanse of sandbanks and beach known as the North and South Bulls, at Booterstown and Clontarf, have, as we before remarked, not passed unnoticed, for the writers of our surveys in the last century and early in the present endeavoured to enlist public opinion to the embodiment of a practical effort for their reclamation. The curse of indifference, and the presence of warring political and religious factions, prevented any prolonged effort being made, so thousands of valuable acres still remain around the Bay of Dublin unreclaimed.

The maritime history of Dublin furnishes sufficient evidence, however, that the work of reclamation for shipping interests has been carried out gradually and well for some centuries back, and that an enterprise that was once considered hopeless, has long since been easily accomplished. It will be seen, from what we state further on, that the mere reclamation of our present foreshores is a small work indeed, compared with the mag-

nitude of the reclamation carried out in improving the port and harbour of Dublin since Speed published his map in 1610.

Not going back even so far, we have evidence in Sir Bernard De Gomme's survey of harbour of Dublin, 1673, and Yarranton's survey of Ringsend in 1674, just two hundred years ago, what a large area of ground was then under the action of the tides—in fact no inconsiderable portion of the present city. Sir Bernard De Gomme, about 1672, was sent to Dublin to ascertain what works were necessary for the defence of ports in this kingdom, and he made a survey of Dublin and Kinsale, and gave plan and estimate for a citadel. The citadel was designed to be a pentagon occupying a space of 1,946 yards, with ramparts, ravelins, curtain, and bastions, the walls being intended of brick faced with stone, and built on a foundation of timber and piles. It was to contain barracks for 700 men and officers, with a governor's house and store-houses for munitions of war, a chapel, a prison, a clock tower and gateway, and draw-bridges similar to those that existed at Tilbury Fort on the Thames, and at Portsmouth.

Think you, reader, where the site for this citadel was chosen—the space now occupied by Merrion-square. At the period when De Gomme made his survey and afterwards, the sea flowed almost to the foot of Merrion-square. With the shipping and war appliances in De Gomme's time, the landing of an enemy on the slob lands north of the Liffey was almost impossible. These shoals of sand and slob extended to a very great distance indeed. The city lay nearly altogether south of the river, save that small portion called Oxmantown, extending in a narrow slip from old St. Michan's Church to St. Mary's Abbey.

The south side of the river was the only landing place, and a look at Speed's and De Gomme's maps would show the winding course of the river and the tract of land it flowed over. Ringsend was a long narrow slip of land running out into the sea, and the navigation above Ringsend became most intricate. No South Wall then existed, or was thought of. The sea water spread over all the low ground, between Irishtown and the slightly rising ground where Beggar's Bush Barracks at present stand, under Sir Patrick Dun's Hospital, along the line of Denzille-street, Great Brunswick-street, Townsend-street, otherwise Lazar's-hill, flowing, in fact, to near Gandon's portico to the Irish Houses of Parliament facing College-street. The ground plan of Chichester House, the site of the Parliament House (now the Bank of Ireland), shows a spot marked as "the old shore." At Lazar's-hill, the upper end of Townsend-street, a frigate was built and launched in 1657.

It was at Ringsend Oliver Cromwell landed in the month of August, 1649, with his army of 13,000, to commence his sanguinary nine months' campaign in Ireland. The direct approach to the city from Ringsend lay across ground overflowed by the tide, but passable at low water for man and horse; but at full tide the way was more inland through the meadows of Baggottrath, now Baggot-street.

Andrew Yarranton, it appears, was "importuned by Lord Mayor Brewster to bestow some time on the survey of the port" of Dublin, which he did in 1674. Yarranton was the publisher of some plans for the im-

provement of harbours in England. He considered it impossible to deepen the water at the bar, and he offered suggestions for an artificial harbour, and a fort for its defence, on the strand—that portion between Ringsend and Town's-End-street, then covered with the tide. Protection then was considered absolutely necessary, in consequence of a French privateer having entered the bay, and captured and carried off a Spanish ship.

Although De Gomme's and Yarranton's plans and suggestions were not carried out, they had the effect of directing serious attention to the reclamation of the waste slob, and improving the port and harbour, which soon after commenced, and has been carried out down to our own day. The trade was, at the period referred to, carried on by vessels of from fifty to one hundred tons, and lighters had to be used for conveying the freight from Poolbeg to above where Essex Bridge now stands. Indeed down until near the close of the last century lighters were used on the Liffey for conveying goods up to Essex Bridge, near to which the old Custom House stood.

In 1676 Henry Howard petitioned the Lord Lieutenant that a patent might be granted to him, pursuant to the king's letter which he had obtained, for establishing a ballast office. Then there was no corporate or other body having the conservancy of the river, although the Corporation of the time were anxious to improve the port. In 1698 the Corporation petitioned the House of Commons, stating "the river had become so shallow, and the channel so uncertain, that neither barques or lighters of any burden could get up except at spring-tide, much merchandise being unlanded at Ringsend, and thence carted up to Dublin"; and they prayed that they might be permitted to establish a ballast office. Opposition and obstacles from the sister kingdom were thrown in the way, and a bill framed for the purpose was slipped through by certain influences. However, in 1708 the Ballast Office was created by an Act of the sixth of Queen Anne.

Since the formation of the Ballast Office in 1707, and the remodelling of it in 1787, under the name of the Corporation for Preserving and Improving the Port of Dublin, wonderful improvements have been effected, and the extent of the reclamation and improvement may be seen on reference to the maps and plans mentioned above.

The soil that was raised by dredging the river during the last 140 years has helped to fill up the space now occupied by the Custom House, Commons-street, Mayor-street, and all round that locality on the north; and on the south, Great Brunswick-street, from the verge of the College grounds onwards towards Ringsend, and over other places already mentioned.

About 1728 the ground known as the North and South Lotts was covered with the tide, and for some years later. The name "Lotts" is stated to have originated in a resolution of the Lord Mayor and citizens to apportion them out, and "draw lots for them," with the stipulation that they should be inclosed from the river by a wall, and filled up. In our own memory that large space of ground situated between the Royal Canal and the sea wall, bounded by the river on the one side and the North Strand-road on the other, was nearly all waste ground, with a few



straggling houses and patches of cultivated and reclaimed swamp here and there.

Around the vicinity of St. Laurence O'Toole's Catholic Church, the ground, though all covered over with dwellings now, is still known as New-found-land. Even a quarter of a century since the filled-up ground where Messrs. Martin's timber yard and workshops stand, on the North Wall, was all but waste, and used for a "shoot." If the reader would wish to learn more of the reclamation of slob lands, won back from the river and the sea by port and harbour improvements, he can consult some of the old histories and chronicles of Dublin and the works already indicated.

The late Charles Halliday, in 1861, read a paper and exhibited Sir Bernard De Gomme's map at a meeting of the Royal Irish Academy. This paper was afterwards printed for private circulation, and has since been reproduced in the Rev. Beaver Blacker's "Sketches of the Parishes of Booterstown and Donnybrook." To the above resources we are indebted for some of the materials of this article.

It will be seen from what we have written what an amount of waste slob land reclamation has taken place in connection with the foreshores of Dublin during the last century and a-half; and it leads irresistibly to the conclusion that, with the aid of modern engineering and commercial enterprise, the further reclamation of the slob lands of Booterstown and Clontarf is a work of the simplest description. Would the work of reclamation pay? We unhesitatingly say, if earnestly begun and honestly conducted, there is no doubt about it. In our last issue we have shewn how the reclamation could be conducted and made profitable to those embarking in it, and adding to the material prosperity of the country.

#### THE CORPORATION AND THE LIFFEY.

THE three engineers commissioned to report upon the purification of the Liffey have furnished the public and those who have appointed them with a very bald report. Most people took it for granted that their decision was to be final, but we have not been among the number. Messrs. Neville and Bazalgette will have another consultation together, and the Borough Engineer will probably delay his report upon the triple report until the Municipal Elections are over.

Fifty-seven plans have been tabulated—a few have been noticed, and fewer still reported upon. None, according to the opinions of the three engineers, could be recommended; so, with a disinterestedness that speaks much for their impartiality, the engineers propose a plan of their own, but supply no data as to how their calculations are based. They inform us that they have gone as closely as possible into the cost of carrying out the purification scheme, and they are satisfied that the sum will not exceed £160,000; but, with the catchment reservoir for flushing purposes, there would be £30,000 more to be added. They suppose the materials to be used would be the same as what have already been named by Messrs. Neville and Bazalgette in their revised plans, so they leave this part of the subject to the judgment of the Borough Engineer. Our readers may remember that the Borough Engineer's materials consisted of rubble and iron—

rubble particularly for the sewers, which, we were told, could be picked up in any quantities everywhere; and, moreover, that rubble sewers could be constructed by any common labourers in Ireland. All our Irish labourers must, in the opinion of our Borough Engineer, be "handy men"—regular "Handy Andys."

It is difficult to get over the suspicion that there has been some preconcerted arrangement and collusion on the head of this supposed final report, for the three engineers are now asked to give data so that the Borough Engineer may be enabled to report upon their report. Never in our long experience, nor do we believe in the experience of any living person, has there been such an amount of systematic and barefaced scheming as in the matter of the Dublin Main Drainage and Liffey purification. It is positively disgusting to witness the repeated attempts made by a clique of individuals in the Dublin Corporation to play fast-and-loose with the public funds, and the health, lives, and liberties of our citizens.

The fifty-seven competitors or persons who sent in plans have had the same trick played upon them as has been played upon others on different former occasions, who responded to invitations of committees of the Corporation. The best and most economical plan has shared the same fate as the worst, and it seems that every subterfuge will be resorted to to worry the public patience by delay, and to carry out, if possible, the darling scheme by which a few well-known jobbers will pocket their hundreds of pounds.

There is scarcely aught which the Corporation takes in hand but is made a milch cow of by the tricksters in the Town Council. Costs are heaped upon costs by referring and re-referring matters to the opinion of counsel. The Main Drainage scheme has been a dozen of times made the subject of reports, and the simple Liffey purification question is now being sat upon, tossed, and squeezed, for the purpose of gain. What a public figure the Corporation of the "second city in the empire" cuts at the present moment! What a nice side-light has been reflected upon the transactions of the Water Works Committee! and what a beautiful exhibition is to be seen by the citizens in the sight of the Collector-General standing with a lien with the sheriff's officers ready to sell off the Corporate effects! Is it not enough to make an Irishman's toes tingle in his boots for very shame! Talk of the old Orange Corporation of Dublin—was there ever any rottenness equal to the rottenness, mendacity, meanness, and shame of the "Reformed" Corporation? Yet it has its public and newspaper apologists in spouters and writers, who have contributed not a little to its present abject state—men who bleed for their country's wrongs—bah!—who bleed every project that's worth bleeding, but take care to do it by catspaws if they can secure them.

The Citizens' Committee should endeavour, by the opening of next session of Parliament, to get some honest member to move for the costs of certain Corporate projects and schemes for which bills were obtained, extending over the last seven or ten years. What is wanted is a detailed list of expenses, giving an account as to whom moneys were paid. The Borough Balance-Sheet is but a cooked report with its endless sundries, "incidental" and petty expenses. The interven-

tion of the legislature is needed to overhaul all matters connected with the local government of this city, for it would be nothing less than a shame and scandal if matters were permitted to continue longer in their present state. We say advisedly that the question is a serious one, and deserves serious and prompt treatment; and as much as we dislike interference with municipal liberties, it becomes a question whether it would not be better, for some time at least, to put the Corporation of Dublin in commission.

The taxation of this city will soon be 10s. in the pound. The borrowing powers of the Corporation are exceeded, and if these powers were twice as great under the present system, our local government would not be a whit better. Were the Corporation to agree upon a plan to-morrow for the simple purification of the Liffey, where is the money to come from? and when would operations be commenced? Several months have passed over since the Lord Chief Justice spoke, and the Irish Executive threatened to interfere; but these five or six months have been wasted in wrangling and delay, with the intent we have already indicated.

We now repeat what we have already stated, that there is need for a more urgent purification in Dublin, in the interest of the public, than that of the Liffey, viz., the purification of the Corporation by reforming its representation. If the citizens fail this month in returning a number of new, honest, and capable men, they will deserve little respect or sympathy, and they may expect, with a certainty, that their burdens ere many months will be greatly increased.

#### SLOB AND TIDAL LANDS.

OUR readers would do well to read the article in the *Engineer* of 23rd ult. on the "Port of Narbonne," in which the Public Works Commissioners of the Aube Department have plans for their approval to make a ship canal of the largest capacity, nine miles long, through the slob and lagoons, by which 40,000 acres will be reclaimed from the sea; an outer harbour of 112 acres, with 33 ft. water, formed; and an inner harbour of 100 acres, with 2½ miles of quays. On the banks of the canal railways will be laid, the locomotives bringing the shipping up to and from the city. This is a great undertaking, but the value of the lands reclaimed will do much towards the cost.

Across the Atlantic, the City of Boston, in conjunction with the railways, is reclaiming 600 acres from the sea—half to be excavated for docks for the largest steamers, and half for a general railway station, the cars coming alongside the ships. This will make Boston one of the first ports on the Atlantic, the saving of cartage, storage, &c., being very great—produce from Chicago, St. Louis, Cincinnati, and other western cities thus being sent all through to Europe at the least cost.

We have shewn what the Hollanders have done in reclamations from the sea, and what the French and the Bostonians are doing; while in Ireland little or nothing, comparatively speaking, has been done with our tidal and slob lands within the past fifty years. The State should reclaim the foreshores the Crown owns, and lend money to proprietors of other foreshores and slob lands to do so. Their embankments and improvements at



Sunk Island have paid them well on the Yorkshire coast. Let them make a similar trial with the Crown foreshores round our estuaries and bays, and sell in lots, to establish a small resident proprietary, which will be paying and reproductive; or empower the unions, as the departments in France have authority, to undertake the reclamation of tidal lands on behalf of the union, and sell when completed, as well as purchase and reclaim waste lands, and then sell. The ratepayers would see that the works were well and efficiently carried out, while the Local Government Board would be a check, the improvements to be undertaken being approved of by the union, the Local Government, and the Board of Works. Thus employment would be given in every part of the country, a vast area improved, and, by the sale in 20, 30, 40, 50, up to 200 acre lots, a small farming proprietary would be established. In any case we should like to see the waste lands and tidal lands reclaimed. We hope that Sir M. Hicks Beach, the Chief Secretary for Ireland, and the Government will arrive at some practical conclusion, and bring in a bill next session for so useful an object.

### THE O'CONNELL MONUMENT.

WEEKLY meetings of the general committee are being held at the Mansion House. The representatives of Mr. Foley seem determined to keep the committee in the dark as to the state of the monument. At Tuesday's meeting one of the members present stated that Mr. Foley, being anxious that the monument should be the great masterpiece of his artistic ability, "would not bind himself as to the date of its completion." The propriety of taking legal steps in the matter has also been partially discussed. We have already hinted that the figure of the "Liberator," so far from being ready for the casting process, has progressed but little since the commission and the £2,000 were given to Mr. Foley. A youthful poet of the past decade thus commenced an address to the "greatest of living artists":—

"Prince of Sculptors! if you can,  
Mould the form of mighty Dan."

We understand the effusion has never been published in its entirety.

Although the first journal in Ireland to suggest the centenary celebration by the inauguration of the monument, we are opposed to any sham celebration in the absence of the completed work, or even a model. We speak apart from all political considerations. We have had quite enough of sham celebrations in this country over projects that were never carried out. We have no hesitation in insisting that the statue can be finished if the committee go rightly about their work.

The balance now to credit is £10,343.

A sub-committee has been appointed to frame a programme in connection with the celebration of the centenary.

### TAXES AND SINECURES— THE BURTHENED RATEPAYERS.

THE views put forward by the writer of the following communication will, we are certain, be heartily adopted by the overburthened and duped ratepayers of our city. The letter is opportune as well as suggestive. After stating that London is anxious to be provided with a better form of municipal government than she at present possesses, the writer says:—

"Instead of our municipal affairs improving, they are daily getting worse, and all through mismanagement. The cool proposal of Town Councillor Byrne on yesterday, for an additional rate of 3d. in the pound to meet the demand of 'the Collector-General,' was very properly negatived. Why not cut down the expenditure connected with

the city management? We have a host of clerks trying to put in from 11 till 4—when they do attend,—while the majority of the ratepayers are compelled to be at business 10 and 12 hours a-day. Then there are other gentlemen holding lucrative positions—sinecures—that seem to be hereditary, who could very well be dispensed with. Of what use are the mace and sword bearers; or is the Lord Mayor's position one inciting to sin, that he must needs have a chaplain? We are not done with those gentlemen when they think fit to retire; they are provided with pensions to smooth their after-life. We have seen officials entering at £80 a-year, and getting their salaries brought up to treble that sum in a few years. Do away with all those useless offices, and no additional rate will be required to meet a contingency; or let the citizens petition, as they are doing in London, to remove the whole body of corporators, and procure a more economic and useful system.

"THOMAS PARKER."

We trust, now that Corporate incompetence and mismanagement have reached their climax, that the ratepayers will no longer look calmly on whilst their money is being recklessly squandered. We understand a public meeting will shortly be called.

### CIVIC LYRICS.—No. LXXII.

#### THE TASK OF THE TRIO.

I saw three engineers with plans  
Around a table,  
And heard the noise of frying-pans  
Outside, and bottle-holding clans  
With tongues like Babel.

The engineers were not abashed  
By constant knocking,  
Although they might; yet still they dashed  
Right through the plans—they cut and hashed  
In manner shocking!

The foremost bruiser was Jem Price,  
And, by appointment,  
He tossed the plans about like dice,  
Which his companions in a thrice  
Reduced to ointment.

Famed Charley Cotton spoke, and said,  
"The best solution  
Was, passing them right through his head,  
Let them treat all plans as dead,  
Through involution."

"Tut, tut!" said Andy Palles. "Pass  
The bottle, Cotton.  
'Tis involution shows the ass;  
But evolution comes, like gas,  
From substance rotten."

"Quite right you are," outspoke Jem Price;  
And, in a jiffy,  
Three heads combined framed in a thrice  
A plan, from old materials nice,  
To cleanse the Liffey!

CIVIS.

### CORRESPONDENCE.

#### BUILDERS' RIGHTS OF POSSESSION OF PREMISES.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—The following legal decision, which appears in this week's *Architect*, is so important a one in its bearing on every-day practice, that I think it worth extracting, that it may gain greater publicity in your columns. If the ruling of the judge in this case be sound law, a very widespread misapprehension exists among our builders as to their rights of holding possession of buildings. I have heard an eminent judge, in charging a jury, reprobate the act of a builder in holding possession of some houses from his employer, but I do not ever remember to have seen it authoritatively laid down that it was illegal for him so to do.—Your's, &c., T. D.

*Cardiff Police Court, October 12.*—On Monday last Mr. R. O. Jones gave judgment in a case that came before him on the Monday previous, where Mr. Jackson, of the firm of Jackson and Sons, builders, Cardiff, charged Dr. Buist for an assault committed on Wednesday fortnight. Mr. Belloch appeared for Mr. Jackson, and Mr. L. T. Reece for Dr. Buist. The alleged assault arose out of Dr. Buist, in company with his architect, Mr. Blessley, and two men in the employ of Mr. Lock, builder, forcing open a door of a new house in Crockherbtown, built by the Messrs. Jackson for Dr. Buist,

who refused to give Dr. Buist possession until a settlement had been made, the house, though arranged to be completed last March, not being now completed. In the attempt to get possession the alleged assault on Mr. Jackson took place.

Mr. R. O. Jones said: The case of *Jackson v. Buist* for an assault was adjourned, I think, from last Monday, for the purpose of giving the Bench time to consider whether a person in the position of a builder acquired any more rights than a mere servant or employer by reason of his contract; and, if so, whether he claimed thereby a right to possess the property until he handed it over to the owner. If so, the case would possess a very different appearance from what it would if the person was only a mere servant. I asked the two learned gentlemen who appeared on either side if they had any case bearing upon it, and I have just had put into my hands a case which entirely accords with the opinion I had formed in the meantime from consultation and inquiry. The case is that of the *Marquis of Camden v. Batterbury*, 28 Law Journal, C. P. reports, page 335. It is clear that the builder does not obtain any right to possession by being employed upon any premises. His position is that of a person to whom possession is given by his employer, and that being so, Mr. Jackson had no right to exclude Dr. Buist from entering his house, and to prevent him doing so was putting himself in the wrong. Dr. Buist had, under the circumstances, as much right to enter his premises, and, if necessary, to break open the door, just as much as a man had a right to break open his own door if a servant in his employ had locked the door against him. This was pretty much the case in this instance. Having once broken open the door, he had a perfect right also to remove Mr. Jackson, if he thought fit, providing no more force was used than was necessary to eject him. It appeared in this case that Mr. Jackson put himself in the way to prevent Dr. Buist from entering, and Dr. Buist took him by the collar for the purpose of putting him on one side, and enabling himself to enter. This does away with the charge of assault as far as Dr. Buist is concerned, but I wish to make a remark respecting the position in which Dr. Buist placed himself. To obtain possession of the house was one thing, but to obtain forcible entry in this way is a very serious thing, and which had been quite another matter in the event of a riot being caused. If it is necessary to force open a door to obtain possession of a house, it should be done as quietly as possible; but taking more men than were necessary to break open the door incurs the danger of creating a disturbance, and the disturbance of the town would have been such as to render him liable to be indicted for inciting a riot. In obtaining his own legal rights he must be careful not to do anything that would cause a breach of the peace. There was no necessity, in a large town like this, to take several persons in a cab to break open a side door, and in dismissing this case I hope all parties will see the necessity of not doing anything calculated to provoke a breach of the peace.

Mr. Reece asked for costs.

Mr. Jones: The costs will, of course, follow the decision.

### SLOB LAND RECLAMATION.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—In a letter I have read in your paper, mention was made of a scheme for reclaiming about 500 acres of the slob on the north side of Dublin. Why not reclaim it all? If the North Wall were continued till it met the pier already made, which projects from the Clontarf side of the bay, it would enclose more than 2,000 acres of land covered by the sea, but which is bare at low water. Moreover, the space in question is mud, capable of being converted into fine land. It might be raised above high-water level by digging trenches in it, and throwing up the stuff so as to raise the level of the whole; the trenches themselves being filled up with sand from the North Bull. This process would also deepen the bar at the mouth of the River Liffey. The only difficulty about it is the stream called, I believe, the Tolka, which flows in at Ballybough Bridge; this would have to be embanked; but I should propose its being suffered to run along the Clontarf shore, making the embankment beyond it. This would preserve the Clontarf shore and the means of bathing; only in place of an open shore there would be a narrow channel. The value of the land so reclaimed would be very great.—Yours, X.

Bristol, 26th Oct., 1874.



## PUBLIC RIGHTS AND PUBLIC NUISANCES.

EPIDEMIC DISEASES—*continued.*

## SIXTEENTH ARTICLE.

It is generally believed that cold weather cuts at the root of contagion, and that there is less need to adopt sanitary precautions. Many of our local bodies during the winter months content themselves with doing nothing in a sanitary direction, and this negligence has been a characteristic feature with our local rulers in Dublin. A continuance of warm weather certainly is favourable to the generation of disease. The decomposition of animal and vegetable substances is more rapid, and foul exhalations are more plentiful and dangerous. Cold weather, although it may retard the spread of disease and be unfavourable to its evolutions, does not cut at the root of contagion, neither can it be looked upon as playing the part of a disinfectant. Fever and small-pox, and other zymotic diseases, will work havoc in winter as well as in summer in houses with defective drainage, and which are ill-ventilated. Want of sufficient food and clothing, and a scarcity of fuel among the poor during the winter months, add to the dangers to which they are subjected.

In this city, as well as in several other cities and towns, many families are living in tenement houses, and, as is often the case, from four to six or more persons are confined to one room. Even in the case of two rooms there is not sufficient accommodation, and it is impossible to carry out the isolation of a patient suffering from any contagious disease. It becomes imperative that he or she should be removed at once to hospital; but in this removal there are precautions to be adopted which the sanitary authorities should in no wise neglect. Special conveyances should be provided, and heavy fines should be inflicted whenever cabs or other modes of conveyance used by the public are utilised for hospital service. The Sanitary Act of 1866 provided for this, but our corporate authorities in this city, as we have already pointed out in these columns, acted in a manner that deserved something more than reprehension.

It is the duty of the medical officers to investigate into the circumstances under which persons suffering from infectious diseases are allowed, or in certain cases forced, to expose themselves. If servants take suddenly ill, and if symptoms of fever manifest themselves, their mistresses often bundle them out of the house at unseasonable hours, and that, too, in not a few instances without a medical man being consulted. A cab is called from the stand, or some other vehicle, and the sufferers are sent off perhaps for miles to their parents' homes, carrying with them the infection, and spreading it along the line of their route. Many such cases still occur, and stricter investigation is needed, so that the offenders may be punished.

If a fever patient has been removed from a room, or death has occurred in it, disinfection should be at once resorted to. Among the poor in a crowded neighbourhood it is absolutely necessary, in cases of fever and death from fever or other contagious diseases, that disinfection be promptly carried out. The Act requires a notice to be given to the sanitary inspector. A certificate from a medical practitioner is also needed to certify that disinfection is necessary to check the spread of disease. The Act of 1866 provides penalties for non-compliance with the orders of the nuisance authority to disinfect. Under the "Nuisance Removal Act" power is also given to enforce the necessary precautions. It is recommended, in case of death, the interior of the coffin and the body itself should be well sprinkled with MacDougall's powder or with a solution of carbolic acid, and the lid screwed firmly down. In the case of a patient dying of fever or other contagious disease, of course the body or corpse is infectious, and ought to be buried as soon as possible. The Act of 1866 provides for the

removal of such bodies as may be a nuisance to the mortuary (if there be one); and this order, in the case of crowded and unhealthy neighbourhoods, should be strictly enforced.

Under the 23rd section of the Sanitary Act it is the duty of the authorities to provide a proper place for the disinfection of articles of clothing; and these should be sent for by the sanitary inspector, who should see them disinfected in the hot chamber provided for the purpose. If there be no hot-air disinfecting chamber provided by the sanitary authority, boiling the articles of clothing or other infected articles (where they can be boiled) should be resorted to. In the case of ticks or mattresses, they should be opened out in the infected room, and be submitted to the action of the disinfection carried out there.

In disinfecting the air of rooms, it is necessary that some gaseous disinfectant be generated in considerable quantities, and kept there for a time. During this process all the doors but one need to be tightly closed, and the crevices pasted over with brown paper. Different disinfectants have been recommended, among which are sulphurous acid, chlorine, nitrous acid, &c.; but the first has proved to be the simplest, cheapest, and most effective. With sulphur the chimney must be stopped up, which can be done by pushing a bag up the aperture, or pasting a strong paper over the fireplace. One or more iron vessels are placed in the room, standing on tiles on the floor, or supported over buckets of water by any convenient metal rods, such as stair-rods or a pair of tongs. Common roll sulphur is broken into small pieces, and these are placed in the proportion of one pound to every 500 cubic feet space, and then lighted either by moistening them with alcohol and setting fire with a match, or by throwing two or three live coals upon them from a shovel. The remaining door is then closed, and the crevices outside pasted over with brown paper, so that the room may be as completely shut as possible. From six to eight hours of the action of the gas generated in the closed room will in most cases destroy all the infectious poisons. If time permits, a longer period may be allowed; but the room should not be left shut all night, for fear of accidents.

Infection, however, often clings to and beneath paper-hangings, and particularly in the case of old walls where there have been many thicknesses of paper, and the paper has been broken here and there. Many paper-hangers and painters have been attacked with contagious diseases in stripping off old paper-hangings. Where a papered room has become infected, it will be necessary, after it has been fumigated with sulphur, that the paper be thoroughly washed with a solution of crude carbolic acid in water. Chloralum has also been recommended for the purpose. Next, the paper needs to be stripped off the walls and burned. In the case of varnished papers, which can be washed without being injured, the case is different, as they can be treated like a painted wall, and receive a thorough washing with a solution of carbolic acid.

The walls, ceiling, flooring, and articles of furniture should be thoroughly well rubbed with same solution, and in these instances crude carbolic acid is recommended as the cheapest and most effectual disinfectant. The ceiling and walls are then to be lime whitened, the room left unoccupied, and freely opened to the external air for a week, or two if possible. In many cases a week, or even two days, cannot be spared; and in some instances the exigencies of the poor need that the room should be re-occupied on the same day of the disinfection. If the disinfection of the room is thoroughly carried out where fever of a malignant kind has occurred, even though it should be re-entered within twenty-four hours, no danger need be feared.

A conscientious performance of sanitary duties is, however, needed, for without such there can be no protection either for rich or poor. The medical officers of health should see that the sanitary inspectors carry out

their orders thoroughly, and that the letter of the Act is obeyed. By protecting the homes of the poor, the homes of the rich are protected; and there is a moral obligation on the wealthy, during times of epidemic particularly, to lend their assistance to the carrying out of sanitary precautions.

## PRINTING, AND ITS ORIGIN.

ALTHOUGH our associations are more in connexion with architecture and building than with the typographical art, nevertheless without the invention of printing little information of the former would be conveyed from generation to generation without the aid of the latter, in the absence of which we would be solely dependent on manuscript and pen-and-ink drawing. Were it possible to revert back to olden time, we would find this alternative scarcely compatible with our ideas of progression; or, in other words, we could not keep pace with modern ideas of civilisation.

The ecclesiastics of mediæval times, in the seclusion of their austere cells, were the book-makers of a former age; and to them we are indebted for the perpetuation of the learning of bygone periods. No machinery was then in requisition, saving that which Almighty power has endowed all men with, when they know how to utilise it.

Art-progress which we have scarcely equalled, certainly never surpassed, coupled with the most refined ideas of civilisation prevailed in Greece and Rome for age after age; yet, although they were proficient in die-sinking—which, in a measure, should have taught printing,—the latter was unknown until within a comparatively recent period of the world's history.

When we look back upon earlier eras, and know that books existed in Mosaic time; also that Egypt and Assyria were not wanting either in refinement or in art-progress, it is singular to reconcile ourselves to the idea that considerably more than 5,000 years of history elapsed before what now appears to us so simple was invented.

In this year of grace 1874—when, by the aid of machinery, printing has arrived at a period possibly marking its nearest approach to perfection,—it may not be uninteresting to shew the origin of this art. Wherever civilisation has prevailed, from the earliest records of time man has invented other means of communication than the voice, by rendering vocal sounds intelligible to the eye in the form of manuscript. In time these became books, but up to the period of the invention of printing they were amongst the costliest articles of luxury, only to be procured at enormous expense, and only by the most wealthy, being copied by scribes from their originals, many of the larger volumes occupying years in the process. How different is it now! The works of the best ancient and modern authors are obtainable by all of moderate competence, and many are within reach of the humblest classes.

In the days of Imperial Rome slaves were usually employed in transcribing the works of authors, and it was not unusual for men of rank to have a household of learned slaves trained to read and write; and in this way their entire time was employed for the benefit of their masters. Thus it was that Atticus (as we find in Dr. Conyers Middleton's *Life of Cicero*, pp. 136, 137), having free access to all the Athenian libraries, was enabled to form an immense collection of Greek books, the money value of which was enormous, for at that period it was nothing unusual for a single small volume to be sold for 100 Roman crowns—about equal to £83 sterling of our money.

In after ages, when Christianity was introduced into Europe, the work of copying was exclusively confined to ecclesiastical hands; and the monks of olden time, in their artistic decoration of page after page of the most elegantly-formed letters—in initial, vignette, and miniature drawing,—shewed how care



and inclination were devoted with unsparing hand to their elaborate adornment, rendering them simply as works of art of priceless value.

It is said the Chinese practised printing ages before it was known in Europe; but it was of the most primitive character, each page being graven upon wood blocks, which were, of course, afterwards useless for any other purpose than the book they were employed upon. Their mode of procedure was thus, and is said to be still in use in China: A smooth block, generally of pear tree, was provided, and the page of writing to be multiplied was pasted down on its surface, on which it left an impression of the characters in an inverted form. The block was then prepared for printing by having all the blank parts of the wood cut away, and the lines forming the characters thus left in relief were ready to be printed from. We have it upon record that this description of printing was known in that country in the middle of the tenth century, and it is said to have been discovered by a minister of state named Foong-taon. In this form it was first introduced into Europe at the close of the thirteenth century, and was employed in the fabrication of playing cards and manuals of popular devotion, consisting, like the cards, of merely a small single page, though in some instances assuming the form of little books of several single pages.

Germany and Holland both claim the honour of the invention of printing by moveable types, as we thus find in page 2 of Luckombe's "History of Printing":—"It is said to be first attempted at Mentz between the years 1440 and 1450 by John Fust or Faust, John Meydenbush, and John Gensfleisch, surnamed Guttenberg. It was long a controverted question by many learned antiquarians whether Guttenberg or Faust was the inventor of that art, till happily the original instrument was found, whereby it appears that the latter only associated the others with him for the sake of their purses, he not being able to proceed without them on account of the great expense attending the cutting of the blocks of wood, which, after they were once printed from, became entirely useless for any other work.

"This instrument, which is dated November 6, 1455, is decisive in favour of Guttenberg; but the honour of single types made of metal is ascribed to Faust, wherein he received great assistance from his servant and son-in-law Peter Schoeffer, who devised the puncheons, matrices, and moulds for casting them, on which account he was taken into partnership by his father-in-law, who, in 1455, had a quarrel with and separated from Guttenberg. Those who have asserted that Faust was the inventor of printing have given for a reason, that they have never seen any book with Guttenberg's name to it, without considering that their first essays in printing both by blocks and moveable types being sold for manuscripts were anonymous, the invention being by them intended to be kept secret; nor was it divulged till their disagreement, by which time Faust had made himself master of the art, and Guttenberg was not able to proceed with it alone, owing to his circumstances.

"The inhabitants of Haerlem assert that Laurentz Jans Koster, of that city, was the inventor of printing, about the year 1430; but that in the infancy of the invention he used wooden blocks, yet after some time he left off that method, and cut letters on steel, which he sunk in copper matrices, and, fitting them into iron moulds, he cast single letters of metal in those matrices. They assert also that his companion and assistant John Guttenberg stole away his tools while he was at church, and with them went to Mentz, where he set up and practised the art. They say much of a book entitled 'De Spiegel,' printed at Haerlem in Dutch and Latin, which is there yet to be seen, and insist on that book to have been the first that ever was printed; but yet, as it has no date, there are no positive proofs to ground the assertion on."

Farther on we find:—"There is at Mentz,

in the front of the house wherein Guttenberg lived, the following inscription, which was put up in the year 1507:—

"JOHANNI GUTTENBERGENSI,  
MAGISTRO,  
QUI PRIMUS OMNIUM LITERAS AERE  
IMPRIMENDAS INVENIT;  
HAC ARTE DE ORBE TOTO BENE MERENTI;  
VVO VINTIGENSIS  
HOC SAXUM PRO MONUMENTO POSUIT."

In 1467 printing was first introduced into Rome, and 1468 into Paris and Vienna; into England, it is generally supposed, in 1471, by Mr. Caxton, under the patronage of the Abbot of Westminster; yet there is a book in the public library at Cambridge with this imprint:—"Impressa Oxonie & finita A.D. MCCCLXVIII." The University of Oxford, therefore, bears away the palm of having first introduced printing in a practical shape into England.

The first book ever printed in England was "The Recnyell of the Historyes of Troye," translated from the French by William Caxton, by command of Margaret Duchess of Burgundy, sister of Edward IV., King of England. Caxton was a native of Kent, born 1412, and brought up as a mercer in London, where he became wealthy. He must have been a well-educated man—at all events proficient in the French language,—for he afterwards held the position of Governor of the English at Bruges, and which he relinquished for the purpose of indulging his literary tastes. The art of typography was new on the Continent; men of the highest calibre watched it with the utmost interest, and gladly undertook the correction of proofs gratuitously, where permitted to do so. Caxton, from his inherent taste for the new art, and also being anxious to have his own translation multiplied, threw all his energies, heart and soul, into it; the result was he gave up his appointment, and came to England, where he made an arrangement with a person named Mansion to set up a press. Caxton furnished the money, and the former managed all the business of the printing office, under the auspices of the Abbot of Westminster. Bookselling was also carried on between them, and appears to have been a highly successful undertaking.

The scene of all this was a house adjoining Westminster Abbey, and Caxton lived in it from 1476 until 1491, and died there at about the age of eighty years. It existed up to 1845, and fell down in that year, possibly from extreme age. An engraving of Caxton's house as it formerly stood is given at page 317, vol. i., Chambers's "Book of Days," and it is there told that, upon clearing away its foundations to form the new Victoria-street, wooden types were found amongst the debris of the former building. In Ireland printing was not introduced until 1550.

How it has since progressed, is not our purpose to enquire. Emanating originally from a primitive and clumsy-looking screw press, by successive improvements it has, by the introduction and adaptation of the most costly and complex machinery all but ended with life, arrived at a rapidity of execution which would have been deemed impossible even at the beginning of this century. The incredible number of copies of any of our daily newspapers thrown off within an hour, printed from continuous lines of paper, cut and folded by almost the one operation, would certainly exceed the belief of our forefathers. And, if it were possible to have thus suddenly burst upon the world, it certainly would have been considerable excuse for the treatment experienced by Faust, when in 1441 he carried his bibles to Paris for sale, so astounding did the multiplication of its copies appear that the invention was treated as superhuman,\* and he was actually thrown into prison on suspicion of dealing with witchcraft and the devil.

W. H.

\* The first form of type used in printing was a *fac simile* copy of the manuscript then in use; and so exactly alike was it, that it is sometimes difficult at the present time to distinguish in old books which are manuscript and which are printed. No wonder, then, the Parisians believed such a number of copies, all apparently by the one identical hand, could only have been produced by supernatural means.

## THE CONFLAGRATION AT THE GAS WORKS.

This alarming fire, by which the entire works were placed in imminent peril—their preservation being probably due to the favourable direction in which a strong wind was blowing at the time—furnishes abundant matter for a most strict inquiry.

From the various reports which appeared in the daily papers of the 23rd and 24th ult., the following particulars of it may be gathered. About two o'clock on Thursday the 22nd it was discovered that a small quantity of coal had become ignited by spontaneous combustion in the coal store. The employes engaged at the works strove to cut the burning coal away, but failing to do so with success, the manager, wishing to keep the matter private, applied to Captain Ingram for the loan of a fire engine to suppress it. About seven o'clock the captain arrived at the works with *one hand engine*, and commenced his superintendence of the operations. The burning mass of coal was played upon with no better success than that of making bad worse, until about midnight, the roof taking fire and falling in, the flames shot up, illuminating the city and its suburbs.

Privacy, it seems, being no longer to be hoped for, the steam fire engines and all the appliances and men of the Fire Brigade were telegraphed for, which along with some of the officers and men of the Guards, afterwards relieved by a detachment of the 50th Regiment, succeeded to some extent in overpowering the fire about 1 p.m. on the 23rd.

It is most discreditable to the city that on a fire of such magnitude water should be squirted from hand engines for such a lengthened time by parties whose *presumed* skill and experience should have taught them that a small quantity of water thrown on a large amount of burning materials so operates as to increase the activity of the burning mass, the action of the intense heat decomposing the water, and resolving it into its elements, oxygen and hydrogen, which gaseous mixture thus produced burns with wonderful energy.

In the account given of this fire by some of the daily newspapers an attempt is made to shift the blame of allowing the spontaneous combustion of this mass of coal (the bulk of which is variously stated), by a statement that this coal was a most inferior article, purchased by the late directorate. Such a statement must be doubted by any person reading the report of the present directors for the half year ending 31st December last, wherein it stated that the directors were debarred from "making any contracts or giving orders for any goods save what were actually required for immediate use," and that from various causes it was feared "that such a supply would not be forthcoming as would be adequate to enable them to continue the lighting of the city during the winter." But, provided that those coals were bought by the late directors, why were they not either used in the production of gas, or, if unfit for that purpose, sold for any price they might bring, for house or furnace consumption, and not allowed to become disgusted at remaining unutilised, and take fire of their own accord? Such a course would have much better suited the shattered state of the Gas Company's finances.

It is almost disheartening to read the "mutual admiration twaddle" imported into the reports of this fire in the columns of some of our journals, such as—"Captain Ingram never acquitted himself in more excellent fashion" (it might be almost truly said that, on this occasion he was endeavouring to extinguish a fire by using an oxy-hydrogen blow-pipe); that the secretary "laboured with that zeal and good judgment characteristic of him." Such statements being made when recording stupid tinkering at the extinguishing of a fire, when a mere shifting of the course of the wind would have put it beyond human power to



prevent an explosion attended with such disastrous results as to make the 22nd October 1874 a black-letter day in the annals of the history of Dublin, cannot fail to be received at their proper value.

The directors and shareholders of the Gas Company ought to remember that only a few months since a fearful accident, attended with loss of life occurred at their works, which many persons believe might have been prevented by the exercise of proper skill and care. Now this fire occurs, and its destroying powers get every aid and assistance by the abortive attempt made to keep it private. It remains for them, now that the glamour of selling their property to the Corporation is dissipated, to enquire if educated practical skill is absent from the management of their property, before perhaps another ignorant mess of some description may occur, the result of which may not only be the destruction of their own property, but may also leave them legally accountable for the sacrifice of human life, and the destruction of the property of others.

JAMES KIRBY.

### "UNDER THE HAMMER."

SINCE the time when Michael Creagh, the Lord Mayor of Dublin, 1689, bolted with the collar of S. S. presented by Charles II. in 1660, the Corporation was never in such a dilemma as of late. The terrible Collector-General has had, for these twelve months back, a lien upon the effects of the Mansion House, and, of course, the valuable archives at the City Hall. He claimed £8,000 and odd for rates assessed and due upon the Waterworks; and, saving the disgrace that would have been inflicted upon the city by the seizure and sale of the Corporate effects, very few honest men would regret to see the goods actually under the hammer. Disgrace, nevertheless, has been inflicted upon the city; and the resolution come to, at least under pressure and fear, and after a year's wrangling and procrastination, will not wipe out the shame attaching to our Corporate rulers.

Every subterfuge was resorted to to wriggle out of the payment and demand, the Waterworks Committee endeavouring to throw the onus upon another committee. Surely the Chairman of the Waterworks Committee must have known the indebtedness of his committee for the rates, and the resistance to the payment and obtaining counsel's opinion have inflicted further burdens on the backs of the ratepayers.

What wise and prudent men have not our Corporation selected for their leaders and guides—leaders who lead them by the nose to the putting of a noose about their necks! The following resolution will, it is supposed, relieve the Corporation, and prevent the exhibition of some of the members attending and bidding for the purchase of some of the articles of *vertù* endangered, for their own cabinets of curiosities:—

"That the Waterworks Committee be authorised and empowered to borrow, upon the security of the Waterworks Fund and the Borough Fund, the amount now due to the Collector-General of Rates, and to pay the same forthwith in discharge of the judgment and costs now imminent, and by way of salvage, so as to preserve the corporate property, and that the city seal be affixed to such security, if necessary."

The money must be made up by borrowing on the security of the rates. The whole sum to the credit of the Waterworks Committee in the bank is only £876 18s. 10d. The Main Drainage Fund has towards its gigantic scheme—which, if carried out, would cost upwards of a quarter of a million—the sum

of £6,812 10s. 10d.; while the Borough Fund has only £1,891.

Notwithstanding the insolvent condition of the civic body, new law-agents are appointed, and old ones are asking for an increase of salary. The newly-elected agent is to receive £800 a-year for his onerous duties in connection with the Waterworks Committee, the Public Health Committee, and the parliamentary business; while the old law-agent, who has seen thirty-two years' service, has as yet but £400. The latter's duties are mostly confined to the Borough Fund. He certainly has some claims on the head of long service; and if he has given up his practice entirely, he is entitled to an increase of salary.

It is worthy of notice, whenever an appointment or a bit of patronage is to be disposed of, what a full meeting of corporators there is. At the meeting for the election of the new law-agent, out of a house composed of sixty members, fifty-nine were present. Whenever really important and urgent sanitary business is to be transacted, there is often not as many members in attendance as would form a quorum. We trust the electors will remember these facts this month, and not forget the heavy burden they bear, brought on by jobbery and blundering. It is worth while also remembering the finale of thirty years' rule of a "Reformed Corporation," which began with promises, continued in corruption, and has all but ended in insolvency and disgrace.

"UNDER THE HAMMER."

### PROPOSED NEW STREET.

OUR illustration this week is an excellent specimen of photo-lithography, which we are glad to say can now be executed well in Dublin. The reproduction in *fac simile* of the artist's own work is of the highest importance to the profession generally. This illustration is such a reproduction from a rough sketch made some time back by Mr. Drew, R.H.A., to realise for some parties interested the effect of a new street from Dame-street to Christ Church and Thomas-street. The sketch was made before it was decided to build Mr. Street's new synod-hall on the site of St. Michael's Church, and it accordingly shews the synod-hall where it was then proposed—to the south side of the cathedral,—and imaginary new buildings of Gothic character on the site of St. Michael's Church.

Mr. Drew advocates, as the best possible line of street, the production of Dame-street in a straight line as far as St. Michael's Hill. This, crossing Fishamble-street and Wine-tavern-street at existing levels, would give the best obtainable gradients, being a rise of about 1 in 50 from the City Hall to Fishamble-street; thence nearly level about 50 ft. north of Christ Church Cathedral. From Wine-tavern-street Mr. Drew's line would continue for a short portion on arches above the level of Cook-street, winding round St. Audon's Roman Catholic Church, and above the ancient ruins into Thomas-street.

All this, however, is a vision too good to be realised while that glorious institution, the Corporation of Dublin, continues to muddle the interests of the city and increase the dead-weight of debt; unless, indeed, the powerful "syndicate" of the brewers and distillers who hold the region of Thomas-street should take the matter in hand. To

the Guinnesses, Roes, Powers, and others who would be chiefly benefited, the undertaking would be a very feasible one. Sycamore-alley, Copper-alley, and other regions intersected are ruinous and valueless. The increased value of new frontages, enhanced by the saving of wear and tear of carriage at Cork-hill, would make it worth the undertaking by these wealthy and, as we know, public-spirited citizens.

### ESSEX BRIDGE v. GRATTAN BRIDGE —MUNICIPAL GRATITUDE.

THE following facts may enlighten some of the members of our Corporation who are anxious to see the name of Essex Bridge changed into "Grattan Bridge":—

In "Public Characters of 1798, 99," in the Memoir of Henry Grattan (p. 299), we are told that at one period of his life "the lustre of his name suffered a temporary eclipse; and so short-lived is municipal gratitude, that it was actually expunged from the records of the city which he has rendered flourishing." There is a foot-note, dated "Cork, Sept. 29," in which appears the following:—"By order of the Mayor, Sheriffs, and Common-Council of the City of Cork, the public are desired to take notice, that the street hitherto named *Grattan-street*, is, in future, to be called *Duncan-street*."

Between 1800 and 1820 there were further illustrations of municipal gratitude when the patriot who "rocked the cradle of Irish Independence, and followed its hearse," was contesting his seat for Dublin. Members of the Corporation of Dublin hounded on a hired mob, the great patriot was pelted with stones, and narrowly escaped with his life. The Corporation at that time were nearly all members of the same communion as Mr. Grattan. Perhaps their descendants are now anxious to make the *amende honorable* to his name and fame. Catholics, however, as well as Protestants, were among the defamers of Henry Grattan in days gone by, and what we have cited above will serve to illustrate the short-lived nature of municipal gratitude. Whether the new Essex Bridge should retain its present name, or be changed to Grattan Bridge, is a question which we will leave in the hands of *drainage* politicians.

### THE PUBLIC HEALTH ACT AND THE HOME OF THE ARTISAN.

ON Friday last Dr. W. H. O'Leary, M.P., delivered the inaugural address of the winter session at St. Vincent's Hospital. He selected for his subject one of importance not only to the medical profession, but the public in general—the Public Health Act.

He said—To-day I shall confine myself within the limits of the duties devolving on the Irish medical officers under this act. The Public Health Act was called into existence by the necessity of preserving her Majesty's subjects from untimely death; and the Legislature wisely determined that in order to stop the annual sacrifice of life it was necessary to place as the guardians of the subjects' lives men who should best know how to preserve them. If Parliament has compelled you to perform such duties, it recognises their importance and necessity; and it will equally recognise the importance and necessity of compelling the authorities, to whom you give your valuable time and scientific opinions, to recompense you. Let me for a moment, by the mention of a few facts, endeavour to show you what has been accomplished by sanitary laws, and what is



The Irish Builder

No. 357 November 1st 1874

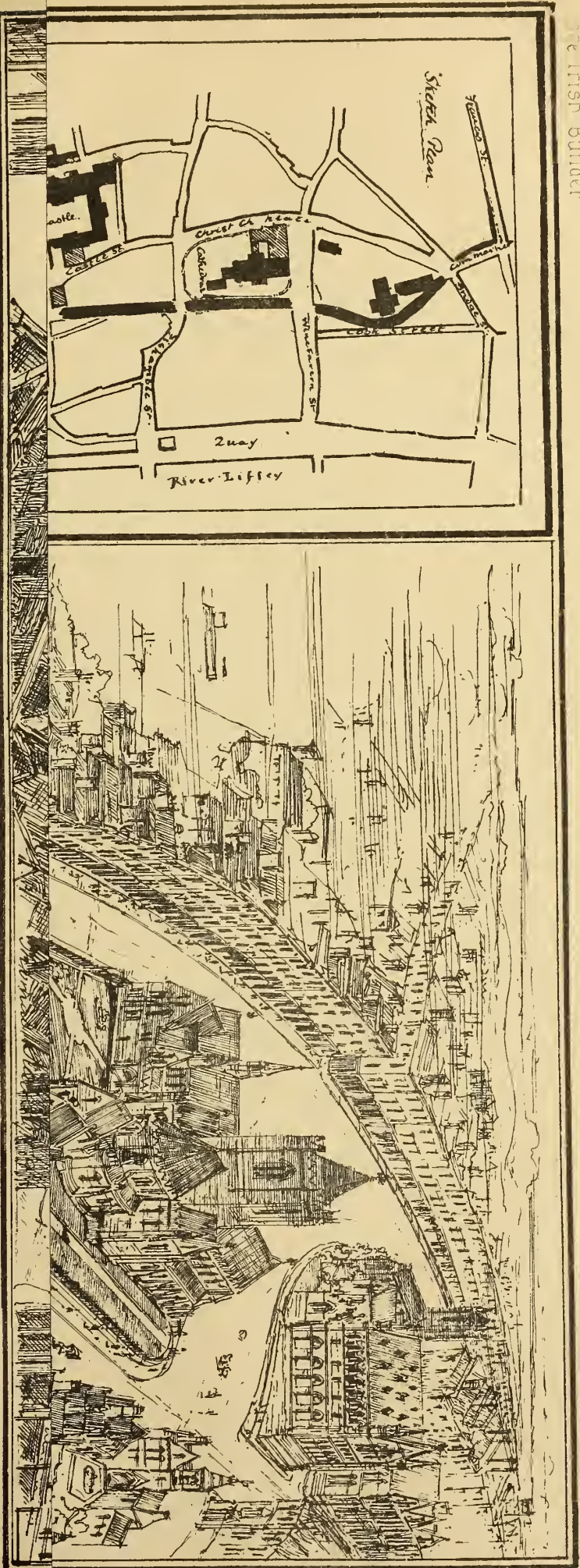


Photo Lith. Pim Bros. & Co. Dublin





CITY of DUBLIN. a proposed line of  
Street from Dame St. to Thomas St.  
The portion from the City Hall to Christ  
Church Cathedral



capable of being effected. The decided decrease of the death-rate in the populous and manufacturing towns of England is remarkable. In 1871 the death-rate in Dublin was 25, while in 1872, had it decreased? No; it increased to 29 in every 1,000 of the devoted population, while London, the largest city in the world, has brought her death-rate down to 19 in the 1,000. It may be fairly asked, Why is the death-rate in Dublin so much higher than it should be? The answer is simple, yet true. The energies of Dr. Mapother are powerless to a degree, while unaided by a sanitary staff of medical men, who alone have the knowledge to detect the subtle cause of disease and death.

I look upon the non-application of the Building Act to Dublin as the greatest calamity of all. Within the past five years, to my own personal knowledge, there has been allowed to rear its head a foe which will yet "make countless thousands mourn."

Hundreds of dwellings for the artisan classes have been lately built. Some of these buildings have as their foundations the sweepings of the streets—containing, as you are aware, every conceivable form of organic matter; others built in a field, over the surface of which an immense and well-freighted sewer emptied its disgusting filth for fifty years. This is no fancy sketch, for I, myself, saw the foundations of those houses laid to which I now allude; and how think you were they laid—how was the ground prepared for their reception? With a broad shovel the filth was cleared away for the first laid brick and mortar, and then, this brick-and-mortar work having been raised a couple of feet, the remaining surface was filled in with common carted material. These houses are now tenanted. Many of you often ask why it is that the faces of the little children, seen daily in our dispensaries, are so ghastly pale. Many wonder at the white and sickly faces, even of those who bring those children for medical treatment. Wonder no more—the answer to your question is simply told.

[The necessity for a Building Act for this city has been frequently urged in our columns. Two years ago, initiatory steps were taken for the preparation of a Bill, but, between "red-taping" and "referring," it has been allowed to slumber. Perhaps our worthy medical M.P., on its revival, would kindly bring it before the "whole house."—ED. I.B.]

### THE SHANNON DRAINAGE.

MR. John Neville, M.R.I.A., County Surveyor of Louth, writes in reference to the proposed improvement of the River Shannon and the Act passed in last session of Parliament for the expenditure anew of £300,000 thereon. He says that "under the Act 2nd and 3rd Vic., c. 61, a sum of £584,807 was provided to carry out the proposed works of drainage and navigation. Out of this sum the riparian proprietors and counties have paid, by compulsory levy, the sum of £300,000 in round numbers. The works were carried on under the directions of the "Shannon Commissioners," and executed by them and their engineers, acting for the Government solely. The riparian proprietors and counties, who were taxed to the amount of £300,000 for these works, had no power either to control or check the plans or expenditure. The £584,807 was expended, and the waters, whose depths were to have been controlled and reduced so as to save the callows or low lands from floods, especially from the larger summer and autumn floods, still maintained their previous physical rights, and the riparian owners got no return, certainly no corresponding return, for taxes to the extent of £300,000, or even for a sixth of the money.

"Avoiding here all the questions of engineering, although thoroughly conversant with them, what is the justice of the case? The

Government of the time, through its own administrators and officers, threw £250,000, levied off the riparian occupiers and counties, into the Shannon without any corresponding advantage to the drainage or to the low lands, which it engaged to relieve from injurious flooding; and for nearly thirty years have successfully resisted the equitable claims for the performance of its contract, implied and expressed, with the riparian proprietors and counties. The present Government has graciously and justly come forward to remedy this great injustice by the Act of last session, and proposes to give £150,000, as a free gift, if the proprietors will consent to be taxed to the same amount. This would amount to about £7 10s. an acre on 20,000 acres, and be spread over a period of 35 years. But the proprietors say, 'Your predecessors have misspent £250,000 of our money;' and further, that 'they would not receive sufficient value for the extra £150,000 they are now called on to contribute.' The repayment, spread over 35 years, alters the question in no way. Under these circumstances the Act of last session will probably become inoperative, and the assent of the proprietors be refused. The proprietors, however, might be got to assent to repay a sum of £100,000, or one-third of the present proposed expenditure, instead of one-half; and if, following up the instalment of the right sort of 'justice to Ireland' of last session, a bill were brought in at the coming session to further relieve the proprietors, making their portion £100,000 (and that from the Consolidated Fund £200,000) an assent to be taxed to that amount would probably be given, although the full justice of the case would be that their contribution should be nothing, or, at the utmost, not to exceed £50,000.

"At the late meeting of the British Association in Belfast, this subject was well brought before Section G by Mr. Lynam, who represented the proprietors. Syphons were suggested by one engineer; another recommended the stopping of the navigation; and since, the diversion of the upper waters has been ventilated. The first proposition is inapplicable to the circumstances of the case; the second, out of the question; and the third equally so. *Les Barrages à Hausses Mobiles*, as adopted by the French; or, perhaps, what is now more applicable to all the circumstances of the Shannon, the patent sluice-gates of Mr. F. G. M. Stoney, of Dundalk, from 20 to 25 ft. long, more or less, or some modification of either kind must, I believe, be finally adopted by the engineers of the Government, and of the proprietors, if the latter be taxed. In the next expenditure, I, for one, hope and believe that we shall have no second failure in the engineering designs and the carrying of them into effect."

Mr. William Gillespie, of Kingstown, in discussing the plans proposed for the Shannon drainage, endeavours to point out the only feasible way, in his opinion, it can be effected, viz., "to get rid of the Shannon, and make its bed a chain of lakes. It is not generally known that Lough Arrow, which discharges into the sea at Ballisodare, in Sligo Bay, is separated from Lough Key (which is practically an expansion of the Shannon) by about only half-a-mile of low-lying land, and hence, if this narrow neck was cut through, the waters would mingle. Owing to the level of Lough Arrow being higher than that of Lough Key, the water of the Shannon would not flow through the former until the river out of it (the Unshin) shall be lowered sufficiently; but this is a mere question of digging, and all the turbines, worm-wheels, pipes, walls, &c., proposed to be put up at Castleconnell, &c., will not be required." . . . .

After alluding to the failure of French schemes of drainage in connection with the Loire, he continues:—"The general draining work of the country must daily cause the

rainfall to be more speedily thrown into the rivers, and, I believe, no system of deepening and widening the river bed and removing obstructions will ever meet the requirements of a wet season. I have seen more than one foot of water in depth over a place which the former Shannon Drainage works proposed should be at all times one foot above the water in Lough Derg, and if any one will consider for one minute what a quantity of water two feet in depth over such an area as that of Lough Derg amounts to, some idea may be formed of the error made in supposing the river could discharge this quantity so fast as to prevent flooding. Lough Allen is practically the head water of the Shannon. Several rivers discharge into the lake, one of which is looked on as being the Shannon. These rivers will make excellent spawning ground for salmon, and being within 25 miles of the sea, a most valuable fishery will be formed. It is said a salmon was never seen in Lough Allen; but if the channel I propose is made, the mere value of the fishery, exclusive of the increased value of the land, would help to pay the interest of the money. To any person who knows the locality the project will be evident, if they keep in mind the following points—viz., that the cut between the two lakes will be on the property belonging to the Judge of the Landed Estates Court (Judge Flanagan), a little to the north of his house at Drumdoe, on the bank of Lough Arrow.

2. That the first mile of the River Unshin, flowing out of Lough Arrow should be sunk.

3. That a new channel be made at south side of hill (instead of north), as it will be much shorter and cheaper than sinking the bed of present river to a point below Rivers-town.

4. The bed of the river to be sunk until it gets into the demesne at Markree.

5. Clearing and deepening the river through Markree demesne.

There is another line—viz., to the south of Mr. Kiaccid's place, by which the river could be made to discharge without going through Markree demesne; but it is not probable that Colonel Cooper would offer any opposition to converting the sluggish stream now passing through his demesne into a noble river, abounding with salmon."

### ASSISTANT COUNTY SURVEYORS.

A DEPUTATION from the Association of the County Surveyors will wait on the Chief Secretary tomorrow 2nd inst., for the purpose of explaining to him their views of that part of the proposed Grand Jury Bill which will likely affect them. It is expected that William Johnston, Esq., M.P., will introduce the deputation.

### "INDUSTRIAL RESOURCES—WASTE LANDS."

IN an article in our last issue, under the above heading, a misprint occurred. "The Corporation on behalf of the Crown could reclaim these tidal lands," should read "The Government on behalf of the Crown could reclaim their tidal lands." In respect to the Clontarf and Booterstown slobes, we may state here that in the project discussed, no interference was intended with the claims or rights of any riparian or coast proprietors. The right of individuals to their foreshores should be respected by all means. Elsewhere we have given some historical particulars connected with the reclamation of lands in the interest of shipping and navigation—lands that were once overflowed with the tidal waters of the Liffey. But what is proposed now is an earnest attempt, and the reclamation of our foreshores for agricultural and other ends and purposes already stated. With the modern appliances we have to our hands, the work presents no engineering difficulties; and, if carried out in the manner we proposed, it is a matter of all clear sailing.



# THE ROYAL HISTORICAL AND ARCHÆOLOGICAL ASSOCIATION OF IRELAND.

THE quarterly meeting of this body took place on the 7th ult. at Butler House, Kilkenny.

G. J. HEWSON, Esq., M.A., in the chair.

The following were elected as members:—Hon. L. G. Dillon; Alfred Webb; F. D. Warde; J. E. F. Aylmer; J. M. Weir; Thomas Hart; Rev. Wm. Brennan; H. A. Blyth; Rev. H. J. Sibthorpe; R. Callanan; T. Chaplin. *Fellows*—Lieut.-Col. MacDonnell and Thomas Lalor, D.L.

The Rev. James Graves, hon. sec., reported that he had represented the association in Belfast, at the recent meeting of the British Association; and the temporary museum established there, under the auspices of the Belfast Naturalists' Field Club in connexion with this association, had formed a most attractive feature of the arrangements on the occasion. He laid before the meeting the catalogue, in which the contributions made from their museum took a conspicuous place, and he read the following communication:—

3 Donegall-street, Belfast,  
2nd Sept., 1874.

DEAR SIR,—I have to-day forwarded to your society the items lent for exhibition, as per list enclosed. . . . .

I am directed by my committee, in a resolution passed at their meeting on the 28th ult., to return to your society the best thanks of the Belfast Naturalists' Field Club for the valuable contribution to the exhibition, and also for the kind assistance rendered by your society in the preparations for it.—Yours respectfully,

HUGH ROBINSON, Hon Sec.

Rev. James Graves.

## PRESENTATIONS.

A number of books, chiefly the publications of kindred societies, presented to the association's library, were laid on the table.

The Rev. John Turner, Dundalk, on the part of Mrs. Dixon of that town, presented to the museum a silver groat of Henry III., in good preservation.

Mr. Prim, on the part of Mr. Innes, Island Mills, Thomastown, presented the original document of 1655, by which John Fry, late ensign of Captain Arthur Helsham's company of Colonel Stubbers' Regiment, in Cromwell's army, conveyed to Captain Helsham, in consideration of "ye sume of twenty-six pounds & 100 shill. sterling" the debenture he had received for his arrears of pay, of "twenty-nine aikers of land being in ye Liberties of Kilkenny." The name of the townland, however, was not specified, and it would now be difficult to determine what portion of the Helsham property in the Liberties of the City of Kilkenny this document referred to. Ensign Fry signed as a "marksman."

Dr. Martin, Portlaw, presented some human remains found in a primeval kist, recently opened near Portlaw, and in which a perfect baked clay urn had been found containing those remains, but it was broken by the finders. Another kist had since been found, and the Rev. Mr. Williams intended to be at the opening of it, to prevent its contents being injured. Dr. Martin also presented two stone celts, one found at the Giant's Causeway and the other at Cahir, yet both composed of basalt; an old drawing, made sixty years since, of a cromleac at Tunaculla, county Cork, and "Maul's Atlas of Ireland, 1728," and "The Roman Antiquities of Exeter."

The chairman presented a photograph of a very beautiful and elaborately ornamented processional cross, of an early mediæval date, found in ploughing a field near the Abbey of Ballylaghton.

Mr. L. J. Ryan, on the part of the Rev. Mr. White, of Ennis, presented some of the human remains found in a cairn, at Shalee, near Ennis, as described in a communication from Mr. White, at the last meeting of the association. The leg bones, and the skull—

the latter, however, much broken—were amongst those forwarded.

Mr. Graves said he had asked Mr. White to see to preservation of as much as he could of the human remains found in their curious chamber in the cairn, and particularly the skull, as it was interesting to trace by such means the race to which the builders of the cairns and cromleacs had belonged. There were two races found represented by the remains in these primeval sepulchres—the long-headed and the round-headed. This was said to be so amongst Celtic burials in Cornwall and elsewhere in England, as well as in Ireland; and whether, therefore, our Irish ethnologists were correct in attributing them respectively to the Firbolg and Tuathade-Danans, he could not say; but it was, at all events, interesting to have the remains preserved. He was sorry the skull was so much broken.

Mr. Mac Redmond, supervisor of Inland Revenue, said he very well knew the locality of the cairn from whence these remains came; and he remembered a curious tradition connected with it. There were the remains of an old castle on a height, at Shalee, one half of which had disappeared, but on a similar height eleven miles away, at Glen, was the corresponding part of an old castle, in every way agreeing with the other, as if it was the missing half of the former. The legend amongst the peasantry was that a necromancer and his wife anciently inhabited the castle of Shalee, but a quarrel arising between them one night, the necromancer jumped off to Glen with half the house, leaving his wife behind in the other half.

## SHEELA-NA-GIGS.

Mr. Graves presented a very curious object, carved in ivory, which had been found by his brother-in-law, Mr. Love, at Annagh Castle, where he lived, near Nenagh, County Tipperary. They were all, doubtless, familiar with the grotesque and rather indelicate sculptures found so frequently in old castles, and even the exterior walls of old churches, known as sheela-na-gigs—figures usually cut in stone, a couple of feet in height. This ivory object was a facsimile in miniature, a couple of inches high, of those old grotesque carvings. It was unique; at least he had never heard of anything like it being found before. He referred to the carving at Kilkea Castle, the residence of the Marquis of Kildare; that in their own museum, which had belonged to the old castle of Ballylarkin, near Freshford, and several others. He believed the object of putting up such figures in buildings in the old time was to catch the "evil eye" and avert the danger supposed thus to be incurred. But it was very curious to see such a design thus reproduced on a miniature scale, in ivory, the object of which it was not so easy to devise.

Mr. Neary, without contradicting Mr. Graves' theory of the "evil eye," still apprehended there might be grounds for objecting to it in the fact that some of those sheela-na-gigs, being placed very high up in the buildings, where they would not so readily catch the eye as that on the entrance gate of Kilkea Castle.

The chairman said there was one at Croom Castle in so elevated a position as not readily to attract the eye.

Mr. Prim said that the sheela-na-gig at Cullahill Castle, Queen's County, was also in a very elevated position.

Mr. Graves adhered to his theory, this objection notwithstanding, considering that the higher the object, it was most likely to be seen from a distance.

All present agreed as to the interest attaching to this miniature reproduction of the "sheela-na-gig."

## CURIOUS BRONZE FIGURE.

The Rev. James Graves exhibited a bronze mask representing a bull's face (life size) with ornamental trappings, bearing in the centre of the face what appeared to be repre-

sentations of the sun and moon. He said that this object puzzled him a good deal as to its antiquity. The brouze seemed ancient, but the treatment had something of an Indian appearance; he was able to obtain a pedigree for it showing that it was known to be in Ireland for forty or fifty years at least. He had bought it in Mitchelstown from a marine-store dealer there, who had once been an advanced politician and was known as "The Galtee Boy;" and he found, from the best testimony, that for from forty to fifty years back it had been hanging up in the coffee-room of Mitchelstown Hotel, and was said to have been originally dug up at the foot of the Galtee Mountain. He had been speaking to Mr. Clibborn, of the Royal Irish Academy, about it, who said that he had seen bulls' heads used as ancient ornaments, somewhat like what was exhibited; but he (Mr. Graves) should bring it with him to Dublin and have it fully investigated before he would be quite satisfied of its being an Irish antique. As he said, it had somewhat of a Hindoo look, but the sun and moon were early Christian emblems.

## THE BATTLE OF COLLOONY.

The chairman exhibited a silver medal—one of those struck by the Corporation of Limerick in 1798, for presentation to their City Militia regiment, in connexion with their engagement at Colloony. He believed those medals to be now very rare, as he had never seen another specimen.

## THE LIMERICK BARBER-SURGEONS' GUILD.

Mr. Lenihan, J.P., Limerick, said he had a somewhat more ancient relic of matters corporate connected with Limerick to exhibit to the meeting. It was the seal of the Barber-Surgeons' Guild of that city; and, as such guild seals were very rarely preserved to the present day, at least in Ireland, he felt sure they would deem it an interesting relic. The seal was of brass, 2 in. in diameter, the central device bearing a shield divided into quarters by a cross, charged in its centre with a lion, *passant gardant*. In the first and fourth quarters were a chevron between three mullets or roses, and the second and third a harp crowned. For a crest, above the escutcheon, a female bust, holding in the right hand either a chalice or wine glass; the supporters on the dexter side a lion or leopard, and on the sinister a greyhound, both dually gorged; the motto—"Christi salus nostra." The legend running round the seal—"The Barber Chirurgeons, or Guild of St. My. Magdalene, Granted by Henry VI." This matrix, however, was not older than the end of the seventeenth or beginning of the last century, and was probably cut then from the design of the original seal, on the latter being lost.

Mr. Lenihan also exhibited the seal of the Tholsel Court of Limerick, cut in wood; a very curious ancient leaden ink bottle, formed in the shape of a satyr's head, and said to have belonged formerly to Christ Church Cathedral, Dublin; a bronze tobacco-pipe, an exact facsimile of the old clay pipes; a pipe-case carved from a piece of yew, in the shape of an antique shoe, and bearing the date 1672 cut on the lid; a stone celt, and an iron battle-axe head, found in Lough Gur.

All those objects excited very great interest amongst the members present.

## RINGS.

Dr. Barry Delany exhibited three silver rings and a silver signet. The first of the rings, which was the most interesting and valuable, was very massive, set with a large cornelian, and a small emerald at either side, and had all the appearance of being an abbot's ring. Dr. Delany said it was found in the neighbourhood of Thomastown; and it might have been the ring of one of the abbots of Jerpoint. The other two were decade rings, with a signet on one of them bearing the sacred monogram, "I.H.S." The other set with a crystal, and rose diamonds, beneath the crystal being the representation



of the crucifixion and "I.N.R.I." The silver seal bore the arms and crest of the Kildare Fitzgeralds, with the motto—"Crom Abou."

#### ST. CANICE'S CATHEDRAL.

Mr. R. Langrishe, diocesan architect, exhibited a tracing of a spiritedly-coloured scroll pattern, executed in fresco, on a pinkish-buff ground, on the chanfer of the arch of the Old Lady Chapel, at St. Canice's Cathedral. He had discovered it in the recent opening of the arch, and was much struck with its beauty.

#### THE OLD KILKENNY CANAL.

Mr. John Hogan presented a copy of the *Universal Advertiser*, a paper published in Dublin by Matthew Williamson, in the last century. This was No. 858, "from Tuesday, March the 10th, to Saturday, March the 14th, 1761," and it contained amongst the domestic intelligence, the following locally interesting paragraph, showing that the old Kilkenny Canal had been actually completed to the tide water, as boats had been able to pass up to Kilkenny:—

"Kilkenny, March 4.—Yesterday arrived here for the first time to the great joy and satisfaction of the inhabitants of this city, three large lighters to take in goods for Waterford, which were this day laden with tallow, butter, and marble for exportation, they sailed up and down our new canal, through all the locks, gates, &c., with the greatest ease and safety. It is with pleasure that we see this great work, begun but three years ago, already become of real use to the public, and will speedily be, when finished, a most useful navigation."

Mr. Prim apprehended they could not rely on this paragraph as proving that trade had ever been actually carried over the canal. The local tradition, at all events, was, that what must be called a trick had been played on the Irish Parliament of the day. It was said—the late Mr. Michael Comerford, of King-street, who in his (Mr. Prim's) youth was considered the oldest intelligent inhabitant of Kilkenny, was his authority—that Parliament granted a certain sum towards completing the works of the canal (for which several previous grants had been made), a part to be paid at once, and the remainder as soon as the works had reached such a state as that boat traffic could actually be certified to have commenced between Kilkenny and the tide-water. The story ran that, before the works had reached such a state as that traffic could absolutely be freely and fully commenced, some boats were filled with merchandize and brought through the whole canal, from one end to the other, being dragged over shallows by strength of men and horses; and that by a representation to Parliament that the traffic had already begun, the money was obtained. This was the tradition, which seemed to be correct; and they might, he thought, fairly consider that the paragraph in the *Universal Advertiser* was sent up from Kilkenny to be published, with the view of aiding the subterfuge intended to be played off on the Parliament.

#### THE BLACK QUARRY AND JOHN'S BRIDGE.

Mr. Hogan also wished to lay before the meeting the following memorandum kindly given him by Mr. Watters, town clerk, in reference to an old document in the Kilkenny Corporation Archives, connected with the Black Quarry and St. John's Bridge. It was as follows:—

"Mention is made of the Black Quarry in the year 1618. An agreement was entered into on 1st December, 1618, between the corporation on the one part, and James Conway and Teige O'Hagan, masons, of the other part, 'for the repair of two broken or decayed arches and the pillars under said arches of St. John's Bridge.' In this agreement it is stipulated among other covenants 'that the said James and Teige may for their further help towards the said works take all wrought ashler stones which the Corporation have nowe in the Black Quarry, and were formerly bought by them towards the making up of the said Bridge and all the pounced stones, and other stones that are nowe in or under the said decayed arches or decayed pillars (saving the Tombs or monumental Stones that are there).'" The foregoing is an exact copy from the passage in

the agreement. It reads as if there were tombs or monumental stones under the pillars of the bridge—or does it mean they were in the Black Quarry? The meaning seems doubtful. But it appears the Black Quarry was worked 256 years ago—how long before, it is hard to say.—P. W."

The meeting was unable to decide whether the tombs had been at the bridge or the quarry, but it was probable old tombs had been used in repairing the bridge, as such remains at the time were frequently applied to the purposes of ordinary building materials. Respecting the Black Quarry, it was observed that it was probably used to supply building material for the town of Kilkenny from its beginning. Bishop Roth, writing in the beginning of the seventeenth century of the stone used for building in Kilkenny, seemed to indicate that the Black Quarry and the Holdensrath Quarries had been worked from a very early period.

Mr. Graves laid before the meeting copies made by the Rev. B. M'Carthy, Mitchelstown, of two very interesting letters amongst the manuscripts of the Franciscan Convent of Rome, not long since brought over to Dublin. They were, a letter from Colgan, writing to the Council of the Confederate Catholics of Kilkenny, asking for countenance and assistance in the great work on which he was engaged, of the Lives of the Irish Saints; find a letter from Primate Hugh O'Reilly, written from Kilkenny, authorising a sum of money of his deposited at Louvaine to be paid to Father Colgan, to aid in carrying out his labours. They were most curious and interesting documents, and if they had never yet been published, they would be a very valuable contribution to the history of the period, to appear in the Association's *Journal*. On this subject he should make inquiry.

Dr. Martin read a paper on the old church of Kilbunny, near Portlaw, and several other old churches in the surrounding district, illustrated with drawings of various monumental antiquities remaining in them.

A paper was also received from Mr. W. F. Wakeman, on the antiquities of Chean-Eois, now Clones, Co. Monaghan.

On the motion of Mr. Robertson, seconded by Mr. Kieran, the thanks of the meeting were voted to donors and exhibitors, and the chairman then declared an adjournment to the first Wednesday in January, 1875.

#### THE LATE SIR JOHN BENSON.

Sir John Benson, whose death took place at Alexander-square, Brompton, some days since, will be remembered chiefly in connection with the Dublin Exhibition Building, his design being the one chosen. He was for some years the engineer to the Cork Harbour Board, and under his direction the navigation of the river was much improved. The Water Works in Cork were also designed by him, and St. Patrick's Chapel and other Catholic churches and bridges. He held the appointment of engineer to different railways in the south of Ireland. His last works before leaving this country for England were, designs for raising the roof of St. Patrick's Chapel, and for the rebuilding of St. Luke's Church, Cork.

Sir John was born in Collooney, County Sligo, in 1812. During the year of the severe famine he was county surveyor for the East Riding of Cork, and his labours were trying and arduous at that time. At the opening of the Dublin Exhibition at Leinster Lawn, in 1853, which arose through the munificence of the late William Dargan, the architect was knighted by the then Lord Lieutenant, the Earl of St. Germans. Sir John was a member of the Institution of Civil Engineers, and the architect of a number of works in the south of Ireland. He had been residing for some time with Lady Benson at Brompton, for the benefit of medical advice, and the announcement of his death was received with feelings of regret by many of his brethren of the architectural and engineering professions.

#### ECONOMY AND TRADE.

At the recent Social Science Congress an address was delivered by Sir G. Campbell on the above subject. He said that the prevailing element in recent changes of opinion on economical questions was a certain distrust of the orthodox doctrines of political economy. Men did not always, or even generally, follow the strict paths of pecuniary self-interest, and we must make large allowances for certain attractions not originally taken into account in the science of political economy. The disturbing causes he placed under three heads—first, habit or custom; second, ignorance and prejudice; and third, the fact that wealth and happiness were not always commensurate. The first-named would ever largely affect human affairs, and as for the second modern advances seem likely to reduce ignorance to a minimum.

In the old republics, and in the American republic until the other day, menial work had been done by slaves, and it was only in comparatively recent times that the Scotch miners and the English agricultural labourers were raised above the position of slaves. But in Scotland, England, and Ireland measures were being taken which would render the people no longer ignorant, and we must make up our minds for the changes necessarily resulting. This social revolution would raise the wages and position of the labourers who perform the more disagreeable and inferior labours. There had hitherto been a steady labour current to America, but this was likely to be stopped, for the Chinese labourer—no mean competitor—was fast supplanting white labour.

He was often inclined to think that if the gates of China were fairly opened it would be a question if the New World was to belong to the Americans or to the Chinese. At present the natives of India were undoubtedly inferior to ourselves, but they had shown an aptitude for skilled labour that would have its effect, for it had been found that they did the work as well as the mill hands in this country. In dealing with the question of the best means of drawing together the interests of the United Kingdom, India, and the Colonies, a real distinction must be drawn between the self-governed colonies on the one hand, and India with other native-inhabited and Crown-governed colonies on the other. In the latter we must do what we deem best in the interest of the colony or dependency, and in that of the empire at large; but in the case of self-governed colonies freedom must prevail over the economical views which we may consider right. His own view was that self-government should not be conceded too early, but when it was conceded he thought that any attempt to maintain too close a connection with the mother country would only lead to evil and bad feeling. As yet, political freedom could not be given to India, and the best thing that could be done in the interest of the United Kingdom and India, was to govern India absolutely with wisdom and justice. As a rule, the present exchange of commodities was incomparably the best system, and the first duty of a ruler was to promote that exchange by liberal tariffs and liberal laws, and by the industrial education and enlightenment of the people.

What was wanted in India was a cheap railway system, and British colonists who would live in the hill countries with their families with a view to become permanent settlers. Touching on the third cause of variation from the strict rules of pure political economy, Sir George said it was generally deemed to be a source of weakness and social evil in this country that there was a tendency to accumulate wealth in few hands. There could be no doubt that a great source of weakness in this country as compared to some other countries, and one which might give them the advantage in the long run, was the want of saving. The great question was, how to give the workmen a sufficient interest in the produce of their labour as to make them prudent.



On the home-rule question, Sir George said he was so far a home-ruler that he should like to see a large portion of our self-government transferred to local assemblies. Very much of the management of Irish affairs might be transferred to an Irish house of representatives, or probably rather to two separate assemblies, representing two Irish provinces, north and south.

A very large portion of Scotch affairs might be much better managed in a Scotch assembly, and England might advantageously be split up into provinces. He felt confident that provincial assemblies might do great good, and still plenty be left for an Imperial parliament to look after.

### SANITARY AND OTHER NOTES.

In pursuance of the provisions of the new Health Act, the unions as sanitary boards are endeavouring to get into working order; but divided opinions in the several boards will delay for months, we fear, any really effective sanitary measures. As we foretold, there is any amount of correspondence passing between the Local Government Board and the new sanitary boards—questions and answers,—and not a few are the questions proposed which the staff of the Local Government Board are unable to clearly answer.

At a meeting of the Public Health Committee of the Corporation—Captain Robinson, of the Local Government Board, being in attendance—the following appointments were made and salaries fixed:—Dr. E. D. Mapother, medical officer of health, £300 a-year; Dr. C. A. Cameron (city analyst) consulting sanitary officer, £300 a-year; J. Boyle, C.E., executive officer and secretary, £300 a-year. The thirteen medical officers of the North Union district, at a salary of £10 per annum each. E. G. Webb, sub-sanitary officer, £46 per annum; T. E. O'Connor, £52; G. Edwards, £26; two sanitary inspectors of police, £160 each; three sanitary sergeants of police, £89 14s. each; two sanitary sergeants, £84 10s.; two constables, £81 18s. each; one sergeant at a nominal salary of £5 4s.; five sergeants, at a nominal salary of £2 12s. each; a clerk at £52 per annum; and one messenger and keeper of disinfecting chamber, at £39 per annum; a disinfecter of dwellings at 3s. per disinfection, and a salary of £19 10s. per annum. Captain Robinson was pressed to give an opinion as to the intention of the Government to pay one-half of the above salaries—the medical portion,—but he said he was unable to do so, the Local Government Board being in correspondence with the Treasury on the subject. A sub-committee was appointed to define the duties of the officers, consisting of Alderman Durdin and Councillors Maclean, Norwood, Tickell, McCornick, Owens, and Byrne. It remains to be seen whether the Local Government Board will ultimately agree to these appointments as a whole, and the salaries fixed by the Corporation. The police element is most objectionable from more points of view than one, and not the least when it is considered that some of the police sergeants and officers are stated to be the owners or sub-landlords of a number of the worst class of tenement houses in Dublin.

In the North Dublin Union, at a late meeting, measures for the protection of Finglas Churchyard were discussed, and the disgraceful condition of Artane Churchyard was also mentioned. Killester, too, came in for notice. The clerk brought up the correspondence between himself and the Public Works Loan Board on the subject of the new building at the workhouse, and on the motion of Mr. Bentley, seconded by Mr. Tickell, the following resolution was adopted:—"That Mr. Carroll, the board's solicitor, be instructed to communicate with the Board of Works, with a view to the carrying out of a loan of £4,500 to the board, as referred to in his letter of 26th June, 1873, and upon the terms mentioned in the draft deed already furnished by the Board of Works."

At the first meeting of the new sanitary board at Clontarf the following appointments were made:—Mr. T. H. Holbrook, C.E., executive officer, at £100 per annum; Professor Cameron, consulting medical officer, without salary, but to be paid a fee of 2 guineas when consulted; Mr. J. Needham, sanitary sub-officer, at a salary of £12; Dr. Paussett's salary as medical sanitary officer was fixed at £5, making, with the £15 allocated by the North Union, £20, being the same amount as the other medical officers in the North Dublin Union districts. An opinion was expressed by the board that the Act in some respects was unworkable.

At a meeting of the guardians of the Rathdown Union, for the purpose of appointing sub-sanitary officers, the following appointments were made:—Mr. Frederick Beattie, for Ashford dispensary district, at a salary of £36 a-year; Mr. John T. Evans, for Arklow, at £31 10s.; Mr. John Manley, for Danganstown, at £10; Mr. Livingston, for Newbridge, at £20; Mr. Peter Moran, for Newcastle, at £20; Mr. John D. Edge, for Rathdrum, at £25; Mr. Lawrence Byrne, for Aghrim, at £10.

ATHY.—At a meeting of the guardians a letter was read from Mr. Byrne, sanitary inspector, stating that at the request of Mr. F. M. Carroll, J.P., and Mr. Nolan, of Hohartstown, he inspected part of Belan and Hohartstown. There were about fourteen families in these localities all living very close to one another, and there had been about thirteen cases of fever within the last three months. It was stated that these cases were caused by some standing pools. The parties to whom these pools belonged said they required them for their cattle. Mr. Reeves said there were a large number of families at Beggars-end, and they could get no water except what they could procure from a private pump. This was a matter that should be attended to. It was ordered that the sanitary officer appointed should visit and inspect the nuisance complained of by Mrs. Owen, and should get the public pump at Beggars-end repaired. The following appointments were subsequently made:—Mr. Claudillon was appointed as sub-sanitary officer, at £20 per annum. The several relieving officers were appointed, with an addition of £5 to their existing salaries.

ABBEYLEIX.—At a meeting of the Union, a number of certificates were sent in by Drs. Swan, Stoney, and Haurahan in reference to nuisances. Mr. Owen inquired whether the public were aware of the proceedings which they were liable to have taken against them under the new Act. He thought they should get an intimation of the provisions of the Act by circulars or placards. It would seem to be an arbitrary thing to proceed against them without giving fair notice and time to abate the nuisances complained of. Colonel Ball thought the parties should be summoned, and in the meantime they could remove the nuisances. Mr. Lalor said it would be absolutely necessary to acquaint the small farmers and others who have cesspools at their doors, and give them time to remove them. The sanitary officers reported that in Abbeyleix there are twenty filthy yards, two pigs in dwelling-houses; in Ballinakill six pigs in dwelling-houses, two filthy yards, two cesspools, and two foul sewers; in Raheen two cesspools and two filthy yards.

LIMERICK.—At a recent meeting of the Corporation of Limerick the water supply of the city was under consideration. The Rev. Mr. Nolan said that the pipe-water supplied to his district was very impure. He asked the council to re-open Sarsfield's Well in "St. Peter's Cell," which, after being closed for a number of years, had been recently discovered. In the course of the discussion on the water supply, it transpired that the Shannon water did not undergo any process of filtration before being supplied to the citizens. At a meeting of the Board of Guardians here, a long discussion took place in reference to the amount of stimulants consumed by patients in the fever hospital. It was ultimately agreed that Lord Clarina should lay before the board a tabular form similar to that used in the military hospitals of the East and West Indies, showing the description of fever, the amount of stimulants consumed, &c., in each particular case, with a view to such forms being introduced by the visiting physicians for the future information of the guardians. Messrs. Hunt and Company, Dublin, were declared contractors for the supply of medicines.

ENNIS.—At a meeting of the Union, a lengthened discussion took place on the duties and salaries of the sanitary officers under the new Act. The chairman expressed his opinion that no further duties were involved under the Act; that it was only giving them different names; and that, as the salaries of the medical officers had been raised £10 each within the last two months, while the poor rates in some districts were 50 per cent. higher, he would not be disposed to give any increase to their present salaries. Major C. F. Studdert proposed that the salaries of the dispensary doctors as sanitary officers be fixed at £10 each; consulting sanitary officers, £20; executive officer, £20; and the sub-sanitary inspector, £5. These suggestions were adopted.

BORRISOKANE.—At the meeting of this Board, Dr. Stoney was appointed consulting sanitary officer; Mr. Ralph, Clerk of the Union, executive sanitary officer—each to receive a salary of £10. The three dispensary doctors were appointed sanitary inspectors of their districts at a salary of £5.

An order was made to advertise for sub-sanitary officers.

BALROTHERY.—The following appointments were made at the union. Each dispensary medical officer to receive £10 in addition to his present salary for the duties of sanitary inspection. Dr. Adrien was appointed consulting sanitary officer, at a salary of £10. The relieving officers were appointed sanitary sub-officers, for which they receive £7 10s. each; and Mr. Lamin, the Clerk of the Union, is to be executive sanitary officer, at a salary of £30.

NAAS.—The following replies to the several questions submitted to the Local Government Board by the Naas Town Commissioners, were read at a meeting of the board of guardians. We reproduce them here, as it will be seen that, owing to the framing of the Irish Health Act, the Local Government Board are not quite clear as to certain duties devolving on the newly-constituted sanitary boards. The Irish Health Act will need amendment, and we are certain, as we stated before, a good deal of confusion and legislation too will arise as soon as it is put in operation over the country. What portion of the Towns' Improvement Act, 1854, has been repealed by the Public Health Act, 1874?—The only alteration made in the Towns' Improvement Act by the Public Health Act is the provisions contained in section 44 of the latter Act extending the limit of rating, in cases where the provisions with respect to water have been adopted, to 2s. in the £1. Whether the duty of watering the streets devolves on the guardians as the new sanitary authority; and if so, whether the town commissioners are bound to hand over to them their watering cart?—The powers and duties which are transferred by the Public Health Act from the town commissioners to the board of guardians are set forth in the 7th section of the Act as follows:—"All powers and duties within the district exercisable or attaching to the sewer authority under the Sewage Utilization Acts, and by and to the nuisance authority under the Nuisance Removal Acts, and by and to the local authority under the Common Lodging Houses Act, the Artizans and Labourers Dwellings Act, and the Bakehouse Regulation Act, and all powers and duties with respect to sanitary matters under any Act, local act, or provisional order within the district. The Board do not think that there is anything in this section to relieve the town commissioners from the duty of watering the streets. Whether the care of the burial grounds within the boundary of the town of Naas is transferred from the commissioners to the new sanitary authority, and whether the new sanitary board are not bound to undertake the payment of contracts entered into by the commissioners pursuant to the 9th section?—The powers and duties of the town commissioners under the Burial Grounds Acts are not affected by the Public Health Act, 1874. Whether the 45th and 46th sections of the Towns Improvement Act relating to lodging-houses remain in force, or are the powers therein contained transferred to the new sanitary authority?—The powers and duties of the Town Commissioners in relation to common lodging-houses appear to be transferred to the board of guardians by the 7th section of the Public Health Act. Whether the six public pumps belonging to the town commissioners are to be handed over to the new sanitary authority?—As the duty of providing the district with water now attaches to the sanitary authority, it would appear that these public pumps become the property of the sanitary authority by virtue of the 9th section of the Public Health Act. Whether the town commissioners' officer, called inspector of nuisances, appointed under 17 and 18 Vic., cap. 103, is to be continued, or, are his duties and payment to be transferred to the new board?—It will be the duty of the board of guardians, as the rural sanitary authority, to appoint sanitary sub-officers for every part of the union over which they have jurisdiction as the sanitary authority, and this includes the town of Naas."

BLACKROCK.—At a late meeting of the commissioners, a vote of thanks was unanimously passed to J. H. Ferguson, Esq., T.C., for having caused at his own expense, the water from a pump to be analysed by Prof. E. Reynolds, the same pump, situated in the township, being proved to supply water of so bad a nature as to be dangerous to health, being strongly impregnated with sewage water. £1,039 6s. 9d., to credit of sinking fund account, was ordered to be invested in bank stock of the Bank of Ireland; and that of the amount of £1,688 18s. 10d., to the credit of the main drainage account, a cheque to be drawn for £1,500 on deposit. In their annual report the commissioners state that "the sanitary committee have continued to exercise their careful attention in every matter connected with the preservation of the health of the inhabitants; and the board are making arrangements to



carry out the orders of the Local Government Board under the Public Health Act. The main drainage of the township, in the districts most requiring it, has been carried out in a satisfactory manner on reasonable terms. Arrangements have been entered into with the Val de Travers Paving Co. to asphalt the principal footpaths of the township to the extent of £1,000. Active steps are being taken to convert the slob lands at Williamstown and Blackrock into a People's Park. The commissioners desire to acknowledge with gratitude the valuable support which they have received from the Right Hon. the Earl of Pembroke, through his respected agent, John E. Vernon, Esq., in aid of this most desirable object." The surveyor presented a favorable report. The several works in his department have been executed "within the estimates." Mr. Leetch objected to two items in the accounts—the enormous law costs and the tax for the People's Park. Complaints were made as to the condition of the Main-street and Rock-road, which were almost impassable from the heavy mud and deep ruts caused by the surface having been torn up for construction of sewers. The attention of the County Surveyor in whose charge the roads are, is to be called to the matter.

**DALKEY.**—The commissioners of this township met on Wednesday. It was announced that the township was in a highly satisfactory state, the district being free from contagious diseases of every description, and in a pure and healthy condition.

#### MURAL DECORATION AT CRAMER & CO.'S WAREROOMS.

OUR city readers are familiar with the very excellent appearance presented by the frontage of the premises in Westmoreland-street, erected a few years ago, for Messrs. Cramer, Wood and Co., music-sellers, from plans by the late Mr. Wm. G. Murray, architect. A renewal of the internal decoration of the front wareroom and gallery having recently become necessary, the firm to whom the work was entrusted resolved that it should be in strict harmony with the style of the building. To accomplish this the designers have had to make extensive demands upon their inventive faculties and knowledge. With these few remarks we shall endeavour, for the benefit of those who may not be able personally to inspect this unique specimen of mural decoration, to jot down a few particulars.

The ceilings are coloured a pale cream shade; in the front wareroom they are panelled in appropriate tints, to which the decorated beams add considerable effect. The arched ceiling of that fine apartment, the grand gallery, is covered all over with a light trellis decoration. The intersecting beams and arches, for sake of contrast, being painted in rich mauve, decorated with gold stars. The decorations in front of gallery, balustrade, beam under same, and supporting pillars (the caps of which are etched with gold), blend in harmony with all. The gradations of color on the various stucco arches claim as it were an affinity to the prevailing tints of the walls throughout, which is a pale neutral green, panelled with bands of mauve and white, finished at the lower part of walls by a dado of dark stone-color, ornamented with lines and bordering of leaves, &c. The principal panelled wall between the raised pilasters (which latter are decorated with white arabesque tracery upon Pompeian brown) are semicircular at the top, to correspond with the open arches which connect the front warerooms and stairs with this gallery. The spandrels formed by these painted arches are colored rich amber, upon which white tracery and musical trophies form a delicate contrast, and correspond with the painted frieze connecting the raised capitals of the pilasters. The spandrels over the open arches are of a terra-cotta color with similar tracery, finishing at both sides of the semicircular arch with medallions upon amber grounds.

We would here call especial notice to these medallions, as well as to those forming the central decoration of the principal panels in the gallery. In them admirable portraits of the most eminent composers, &c., of modern times—notably, Handel, Mozart, Beethoven, Mendelssohn, Rossini, Offenbach, Verdi, Weber,

Meyerbeer, E. Haydn; also of Cramer, the founder of the firm, and Clementi, originally senior partner in Collard and Collard's. These, which are all striking likenesses, have been treated in a masterly manner, but in decorative style, being white upon amber, shaded in outline only. These fine examples of the decorator's art have all been exclusively designed and carried out by the well-known firm of James Gibson and Son, decorators and stained glass manufacturers, 49 and 50 Mary-street, Dublin.

#### STATUE OF ARCHBISHOP MAC HALE.

WITHIN the past week we had much pleasure in viewing, at the studio of Mr. Thos. Farrell, R.H.A., in Lower Gloucester-street, the full-sized model of a statue of the Archbishop of Tuam. The figure (8 ft. in height) will be sculptured in Saravezza marble. It will rest on a pedestal (about 9 ft. high) of Portland stone elaborately carved. We were pleased to observe with what fidelity the sculptor has reproduced in marble the features of this venerable prelate (familiarly known as "John of Tuam") who still lives amongst us.

The work is to be completed by next March—on the fiftieth anniversary of his election to the Archbishopric of Tuam.

The statue is to be placed in the square in front of St. Jarlath's Cathedral, Tuam.

Bewildered and disappointed committees in search of sculptors at the present time would, we opine, be much benefited if favored with an opportunity of viewing the specimen of native art here noticed.

#### THE BLACKSTAFF RIVER.

WRITING to the *Belfast News-letter*, Dr. Henry MacCormac says:—"The only possible way to deal satisfactorily with the Blackstaff, or with any river converted into a sewer, is to cease to render it a receptacle for impurities. Rivers were intended to beautify the earth, refresh and comfort its inhabitants, and not to be converted into cesspools. The treatment to which the rivers that flow through our towns are subjected is disgraceful. No river is in a worse position than the Belfast Blackstaff; and I hope the ballad-singers will take up the following strain, slightly altered from some lines which appear in the *Manchester Lantern* on the Irwell River, and which suit the Blackstaff just as well:—

The Blackstaff flows by noisome spots  
A dark and deadly river;  
Foul stench its forget-me-nots  
Which taint the air for ever.  
It gushes, glides, it slips, it slides,  
And mocks each poor endeavour;  
For all we write and all we talk,  
It reeks, and reeks for ever.  
It reeks with all its might and main,  
Of death and plague the brewer,  
With here and there a some nasty drain,  
And here and there a sewer.  
By fetid bank, impure and rank,  
It swirls, a loathsome river;  
Its breath is strong, though we be weak,  
And death it brews for ever.

But now the Lagan likewise shares the horrible impurity of the Blackstaff, and stenchy offal, bidding fair to render the shoreward dwellings well nigh uninhabitable, I find actually extends along the lough beyond Craigavav.

#### THE LATE ACCIDENT IN MARY'S-PLACE.

AN inquest on the body of Henry Fagan, whose death resulted from the falling of a ceiling at the Christian Brothers' School, Mary's-place, was held on Tuesday. Mr. Grace, Superior of the Order, deposed that on the 2nd inst. workmen were engaged at the schools, adding another storey to the building. The work was being carried out by Mr. Meade, of Great Brunswick-street, with whom witness had a contract. At the time of the accident he (witness) had ascended the scaffolding, and saw the workmen employed on the ceiling. Some of the children were then in the schoolroom underneath. The first thing that attracted his attention was the crashing of timber. The men were standing on the ceiling and doing something to the trusses of the old roof. The ceiling sank

down, and then fell. Only about half the ceiling fell into the school. On going down he found that several of the children had been injured. Lifted two of them from the window; others had been jammed in between the fallen timber. According to the terms of the contract the business of the school was to be carried on during the alterations. Mr. McCarthy was the architect.

James Carey, bricklayer, said he was Mr. Meade's foreman, and was present at the school when the accident occurred. Assisted in getting some of the children out from amongst the debris. To the best of his opinion the deceased was one of the boys whom he extricated. There were slight traces of blood on the boy's face.

Mr. John McNulty, resident pupil of the hospital, deposed to the injuries which the boy Fagan sustained. He was carefully attended up till the day of his death. Believed death resulted from the fracture and other injuries which the child had received.

Mr. Fagan (uncle of deceased) said he attached no blame whatever to the Christian Brothers. On the contrary, he had to thank them for their kindness to the boy since the accident occurred. He felt surprised, however, that Mr. Meade himself was not present to explain the cause of the accident.

Mr. Byrne also said it would be most satisfactory to the boy's friends, as well as those present at the inquiry, if Mr. Meade had attended. The Christian Brothers knew nothing further of the transaction, and were altogether in the hands of Mr. Meade.

After a brief consultation, the jury returned the following verdict:—"That Henry Fagan died in Jervis-street Hospital, on Monday, the 26th of October, 1874, from the effects of fracture of the skull and other injuries which he received in the schoolroom at St. Mary's-place, on the morning of Friday, the 2nd of same month, by the falling of the ceiling of said schoolroom; and that proper care and precaution had not been taken by the party responsible for safely carrying out the alterations in said schoolroom."

#### PUBLICATIONS.

WE have to acknowledge receipt of the following from Messrs. Lockwood and Co.:—"Earthwork Tables," by Broadbent and Campin. A handy book for the office of the engineer and contractor. "Quantities and Measurements," by Alfred Charles Beaton, 4th Edition revised.—This is one of the useful handbooks comprising "Weale's Series." It contains plain directions with diagrams for the workman. A list of Builders' Prices is also given. "The Safe Use of Steam," containing Rules for the Guidance of Unprofessional Steam Users. By an Engineer.—The information contained in this brochure is put forward in the simplest form; it should tend to remove the "great ignorance of the proper control of steam power."

#### NEW THEATRE IN WATERFORD.

IN noticing the efforts now being made for the erection of a new theatre in Waterford by a Limited Liability Company, the local *News* says:—"We are happy to be in a position to state that the directors of this company have had before them, at a meeting this week, splendidly-executed plans (prepared by Messrs. W. C. Doolin, C.E., and R. Ryan, City Surveyor) of the projected theatre, and after very careful scrutiny (the architects affording the fullest explanation), they, together with the specifications, were unanimously approved of, and tenders for building according to same to be invited, the work to be executed not later than the 25th March next. Having been favored with a view of the original plans, it affords us much pleasure to state that Waterford will soon possess one of the handsomest and best theatres in the kingdom, capable of accommodating 1,000 persons; and as it will be, to a certain extent, under the control of the Corporation and its officers, we have sufficient guarantee that nothing of an objectionable character will ever be presented within its walls."

The advertisement for tenders will be found on our front page.

The overseers of scavengers have been directed by No. 1 Committee "to keep washed, clean, and in repair the pedestals of the public statues and memorials within the Borough."



## HOME AND FOREIGN NOTES.

The Dundalk Gas Company have reduced the price of gas from 6s. 8d. to 5s. 10d. per 1,000 feet.

The Town Commissioners of Tullamore have decided on applying for a loan for the purpose of erecting a town hall, &c.

On Monday evening, whilst two men were working on a scaffold at Monkstown-avenue, a plank gave way, and one of them was precipitated to the ground, a distance of nearly 30 feet. He has received such severe injuries that small hopes are entertained that he will recover. The other man escaped uninjured.

The foundation stone of the new premises for the Hibernian Bank at Letterkenny, Donegal, has been laid by the Very Rev. Thomas Diver, P.P. There are now three branch banks in the town. The architect of the new building is Mr. Timothy Hevey, Belfast. The town of later years has much improved commercially, and we hope it will also show progress in a sanitary direction.

No "PUFFER."—The following advertisement appears in a provincial contemporary:—"Hall Sooley, bricklayer, who stands unrivalled in the art of building chimneys and funnels, and curing them from smoking and puffing, respectfully informs his friends and the public, that all orders will be punctually attended to by him on the shortest notice. Hothearths, ovens and kitchen-ranges, set in the best manner, and on most reasonable terms. Any work of the above description undertaken, if not sufficiently cured, will demand no payment."

A SHOVEL AND BROOM NOTE.—Sub-Committee A of No. 1 Committee of the Corporation met on yesterday at half-past one o'clock, p.m.—Councillor Callow in the chair. There were also present—Alderman Draper and Councillors Gavan and Franklin, and Councillor Bury, *ex officio*. The following extract from the Police Report was read, for week ended 17th inst.:—"The streets, lanes, and other public thoroughfares were regularly scavenged for the week ending 17th inst." (Oct.) [A committee of the whole house will sit on the 25th instant to confirm the above and other "reports," and to thank the city officials.]

A memorial window of stained glass has been placed in St. Paul's Church, Gilford, County Down, as a tribute to the memory of the late T. M'Master, of Dunbarton House. It has been erected by three of his oldest and most intimate friends, W. R. Masaroon, W. Spotten, and T. Barklie, Esqrs. The centre lights contain representations of the Resurrection, Ascension, and the four Evangelists. In the side lights are the Good Samaritan, and Christ multiplying the loaves and fishes, with scenes descriptive of the following passages in Matt. 25:—"I was hungry and ye gave me meat;" "I was thirsty and ye gave me drink;" "Naked, and ye clothed me;" "A stranger, and ye took me in." The circular part of the window contains a representation of the conversion of St. Paul, and surrounding it are the initials of the donors. The work has been supplied by Caldwell of Canterbury.

LEVBAUX'S SELF-PROPELLING TRAMWAY CAR.—Mr. Leveaux, the patentee of a new spring motive power, by the action of compound coiled steel springs, has been engaged on the application of his invention to tramway-cars upon a practical basis, and it is announced that public trials of such self-propelling cars will shortly be made on some of the metropolitan lines. The action is said to be smooth and noiseless, effective, and perfectly under control, both for forward and backward motion.

TRAMWAYS IN NEW YORK.—The total length of tramways in New York is 76 miles; they employ 11,086 horses, moving cars at the busiest times at the rate of one every 47 seconds. The rate of speed per hour is 5 miles, and the average cost of construction three-eighths of a million dollars per mile. The number of passengers carried last year was 192,000,000, being 2½ millions per mile. On some parts the ratio was still greater. The tramway in the Sixth Avenue carried 4,000,000 per mile, and that in the Third Avenue below Central-park, 5,000,000. The average fare on the different lines and their branches is 5½ cents, whilst the total expense for passage is 4 15-100th cents., leaving a net profit of 98-100th cents. The business of these tramways has increased 225 per cent. during the last ten years.

TO RENDER GLASS OPAQUE OR FROSTED.—According to *Dingler's Journal*, a sheet of ordinary glass, whether patent plate or crown does not matter, is cleaned; and if only portions of it are to be frosted, those are left bare, while the others are protected by mechanical means in any simple manner. Some fluor spar is rubbed to a fine

powder and mixed with concentrated sulphuric acid, so as to make a thin paste, and this is then rubbed by means of a piece of lead upon those parts of the glass required to be rendered opaque. A fine frosted outline or design may thus be produced upon a sheet of smooth transparent glass. To finish the operation, the glass is gently heated in an iron vessel covered with a funnel passing up the chimney, to get rid of the noxious fumes that are given off; on cooling, the plate is washed with a dilute solution of soda or potash, to remove any acid yet remaining, and is then rinsed in water. Focusing glasses for the photo camera, and development glasses for pigment-printing, can be prepared in this way at very little expense.

## TO CORRESPONDENTS.

RECLAMATION OF IRISH FORESHORES.—Correspondents who desire information upon this subject can consult our back numbers, and other sources alluded to in our present issue. The subject is now getting considerable ventilation in different sections of the Press of the three kingdoms. We can await the issue without the least fear of having our views pronounced unsound, or the project proved impracticable. On the contrary, success is certain if a determined effort is made here in Dublin for the reclamation of the slob lands of Booterstown and Clontarf.

C. E. (Belfast).—We are aware of the improvements effected in connection with the lough and harbour. A historic sketch of the reclamation would, no doubt, be interesting.

A MEDICAL OFFICER.—The engineering question can never be ignored, and your advice must be supplemented by the opinion of a respectable architect or engineer. The Irish Health Act will need amendment before it can ever be expected to work satisfactorily, and with safety to the medical staff and satisfaction to the public.

RATEPAYER.—The chance existed, and still exists, if your brethren move in the matter; but if they neglect their own interests, we can do but little to save them from the infliction impending.

HALLOWEEN, OR ALL HALLOW EVEN.—The custom is common to Scotland as well as to this country. See Burns's poem, "Hallowe'en." It is only in certain districts of England the custom is observed, which seems to be fastly dying out there.

MUNICIPAL.—Lord Elcho's bill for the extension of the City Corporation of London over the entire metropolis by the absorption of the Metropolitan Board of Works and the vestries, will scarcely succeed in its present shape, even should the Government adopt the bill. It has no chance at present of being carried as a private bill, and the bill of a member of the House outside the Cabinet. That the London Corporation needs a reform, as also the City Companies, there exists no doubt; but, on the whole, the present bill is a very suspicious measure, and tends to the destruction of local rights and privileges by a system of centralisation.

M. D. (Cork).—The "Manual of Public Health," edited by Mr. Ernest Hart, and published by Smith, Elder, and Co., London, will be found most serviceable. As we have announced in last issue, a "Manual" for the use of Irish boards is in preparation by Dr. Grimshaw, of this city, and will be ready before the new year. Both volumes will form admirable text books, and will be most useful companions. The number of sanitary Acts is legion, and many are conflicting. The manuals will save a deal of trouble as books of ready reference.

J. W. (Armagh).—You omitted to send your full name and address.

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## NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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GREY ABBEY—VIEW FROM CHOIR.

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# The Irish Builder.

VOL. XVI.—No. 358.

Notes on a Sanitary Survey of Dublin  
Seventy Years Ago.



ON a former occasion we gave an insight to the sanitary, or rather unsanitary, condition of Dublin one hundred years ago, and the suggestions

made for the reforming of some of the abuses existing at that period. We now propose to take a glance at the condition of this city at the commencement of this century, and shew the state of some of its streets, public squares, markets, and its river. There are some would-be improvers in our midst who believe it was reserved for them to point out the wants Dublin stands in need of, and among our main drainage projectors are men who believe they were the first to propose a feasible scheme for the purification of the Liffey.

Seventy years ago, Mr. Hely Dutton, in his "Observations" on Mr. Archer's Statistical Survey of Dublin, made many pertinent suggestions, which resulted in subsequent works of improvement. It will be interesting to our readers to hear what Mr. Dutton thought of spots in our city that needed improvement, and the means by which he considered they might be carried out.

Speaking of Stephen's-green in 1802, he says:—"In its present state it scarcely deserves mention; it is a disgrace to the city and to those who have it in their power to improve it. I understand some overtures were made some years since, but for what reason they failed is best known to the parties; if a reasonable compensation to the city will not induce them to conform to the wishes of the inhabitants, I imagine an application to Parliament would relieve them; if, on the other hand, the inhabitants expected any reasonable compliance, I should think there would be no more difficulty in adjusting the difference by a jury than is every day experienced by the Wide Streets Commissioners."

Stephen's-green has certainly improved since Mr. Dutton wrote the above remarks, but it falls far short of what a public square of its magnitude or position should be. It is not laid out with gardening taste, nor is it free to the public. Although we have no Wide Streets Commissioners now, we have a Corporation whose duty it should be to give a practical embodiment of the people's wish in the direction of throwing open Stephen's-green.

Speaking of Mountjoy-square, our author remarks:—"It seems, is likely to be finished shortly; but I perceive they have committed the same errors, of filling up hollows with rubbish of all sorts, where it is likely trees are to be planted, and will cost the inhabi-

tants no small sum to remove. It is strange that these affairs are committed to random efforts of carters and labourers, and that some of the inhabitants, who, from having country houses are used to such affairs, do not attend to it in time." In fact, in the making of Mountjoy-square or Merrion-square the spot was used for "shoots," and the *débris* of buildings around was carted for filling-up stuff. The trees and shrubs, as our author remarks, never thrived well from the badness of the soil.

Concerning the College-park, Mr. Dutton says it "is capable of, and wants improvement very much, which could be obtained by railing it in on the side of Nassau-street, and by a tasteful planting, of which it is totally destitute. Some improvements have lately been made under the inspection of Messrs. Simpson, of College-green [the noted seedsmen and nursery gardeners], which shew what may be done, as they have converted that piece of ground opposite the House of Lords, which was a great nuisance, into a very agreeable object. It is to be hoped they will not stop here, but continue the improvements." Both Nassau-street and College-street, were subsequently greatly improved. The old dead wall that lined the College-park in the former street, was replaced upwards of thirty years ago by a substantial and ornamental iron railing and granite base, and within the last three years the piece of dead wall adjoining the College, in the latter street has been similarly improved. Passing along to Park-street, our author observes:—"A handsome iron gate might be erected in Park-street instead of the old wooden one there, and by taking in an old house or two, it could be made highly ornamental, and would have a fine effect from Merrion-square. It will, perhaps, be objected to, that opening views to the street would disturb the contemplations of the students, from the noise of the carriages and the admittance of strangers at all hours of the day. I should, with great deference, imagine that exercise, after studying in their chambers, is the only use the park is at present put to."

The citizen who remembers forty or thirty years back, must remark the great change that has taken place around Park-street and Westland-row, all built upon now, but at the time Mr. Dutton wrote, little built upon. There can be no "fine effect" when viewed from Merrion-square now, for the College entrance in Park-street [Lincoln-place], and the other spots mentioned, are not in the sight of the square now. Anent Leinster Lawn, our author's observations and suggestions are somewhat similar to these quoted. He says:—"The Duke of Leinster's Lawn is capable of great improvement: indeed, the arrangement is by no means modern, and, as it is always in full view, requires some attention to make it correspond with so superb a mansion." The history of Leinster Lawn, since Mr. Dutton's day, would form a long chapter of varied scenes and changes. The dwarf wall and sunk fosse, of our younger days, has departed since or rather previous to Mr. Dargan's Exhibition Building of 1853; and well-known public buildings, besides statues of the Prince Consort and William Dargan, are now to be seen upon the "Lawn." The open spaces that remain are kept in a tolerable condition, but there is still room for improvement.

The state of Merrion-square in 1802 came

in for severe animadversion at the hands of Mr. Dutton:—"Merrion-square, I am informed, is superior to anything of the kind in London; but, indeed, the manner in which it is planted and kept does very little credit to the managers. Instead of keeping the grass constantly rolled and neatly mowed, it is like the ground of some poor charitable institution, kept for hay, and sold to the highest bidder to help to defray the expenses of the poor inhabitants of the square. . . . The withered grass is permitted to lie (I suppose for manure for the meadow) until covered by the fresh growth in the spring, and helps to throw an air of gloominess over it at that dreary season. Indeed there would be an inconvenience in keeping it neat. Carpets could not be beaten in it, nor could all the dirty dogs of the town clean themselves so well as in the long withered grass; few people would be surprised if cows were taken in to graze by the week." The "dirty dogs," if not very large, may squeeze themselves through the railings of Merrion-square still, and clean themselves on the grass. The managers still prefer the admittance of lapdogs and poodles, my lady's nursery maid, monthly nurse, and blessed baby, to the admittance of the working classes or general public who do not live around the squares. This is an enlightened age, and we are a civilised race.

Out go, man;  
And in go puppy.

All our squares are unfortunately alike in the spirit of exclusiveness that marks their management.

Speaking of the Royal Exchange (now City Hall), our author observes:—"If the Exchange steps were cut away, and the entrance confined to the elegant one opposite Castle-street, it would not only give a breadth where it is much wanting, but the entrance is much easier of access, and it would likewise help to open the approach to the Castle, which is greatly wanting."

In 1815 the metal balustrade of the Royal Exchange gave way, owing to the pressure of the crowd which collected to witness the whipping of a criminal. Many lives were lost and others injured on the occasion. The high steps, however, continued, and it is only quite recently the Corporation effected an improvement in the approach and ascent. Castle-market is described as a "wretched, ill-contrived one," and New-market is stated to possess every defect of Castle-market. Patrick's-market is stated to be still worse, and in constant danger of being flooded, of course by the Poddle river.

In allusion to the market higher up, Mr. Dutton says:—"Some years since Sir Thomas Blackhall built a very convenient market in a more healthy situation; but, for what reason I cannot tell, the butchers seem to prefer their dirty situation, and the new market is almost uninhabited." Down to our own time the butchers still kept to the child of their early fancy, believing that dirty luck was good luck.

The vegetable market in Mary's-lane is described as "the most wretched and inconvenient that can be conceived; it is kept in such a filthy state, and the size so very inadequate to the purpose, that few housekeepers attempt to go there." It continued so for sixty years afterwards; and Mary's-lane, as a street, and the adjoining approaches, are scenes of misery, sin, dirt, and dilapidation.



We will conclude our notes for the present with an extract from Mr. Dutton in relation to the River Liffey. We ask particular attention to his remarks, for in the quotation will be found the suggestion of main sewers parallel to the river—the grand so-called original idea of our main drainage engineers. Thus writes our author:—"I do not know if it is possible to dock in the River Liffey; if vessels could be at all times water borne, it would be a very great convenience. Possibly the public sewers of the city might be injured, or possibly mountain floods might prevent the adoption of the idea; yet I imagine it might be contrived by means of ample overfalls, to prevent the danger on this head. I merely throw out the hint for the consideration of those better acquainted with such matters than I pretend to be. The inconvenience to the sewers might also be prevented by main sewers parallel to the river, which, by turning the river through them, would at all times be kept clean, as, from the contraction of the stream, the force would be augmented."

We will probably return in our next to the review of some more matters touched upon by our author, in relation to public wants in Dublin seventy years ago, some of which still remain unprovided.

#### THE DUBLIN MAIN DRAINAGE COMMISSION.

THE citizens of Dublin, influentially represented, have pronounced with crushing effect against the chronic mismanagement that has characterised the doings of the Corporation for the past twenty years. When driven to bay, the spokesmen and apologists of the Town Council reluctantly agree that the censure of the citizens is not wholly undeserved, and that they have just cause to complain. We have so often in these pages portrayed the gross abuses and wilful neglect of our City rulers in every matter they undertook, that it is needless just now to enter into a review of the work the Corporation attempted to do, and failed to perform. Over Main Drainage and Liffey Purification schemes thousands of pounds have been shamefully expended with no honest purpose in view. Every scheme and project, it is well known, has been made a milch cow of by members of the Corporation, and, as far as the municipal body is concerned, we are as far from the solution of a very simple question as we were ten years ago.

It is preposterous to compare the drainage project of London with that of Dublin. The former metropolis is almost as a province when compared with this city; and it would be utterly ruinous, if not impossible, to carry out the darling scheme propounded for Dublin. The public are already aware of the result of the Citizens' Meeting on Thursday last, and the carrying of the report that embodied an application for a Royal Commission. We are sanguine that the commission will be granted, for it will conclusively settle the question whether a plan for the simple purification of the Liffey and the drainage of the city cannot be devised, more suited to the requirements and resources of Dublin than that sanctioned by the Act of 1871? On the motion of Sir Arthur E. Guinness, seconded by Mr. Joseph Pim, the report was unanimously adopted.

The motion of the Hon. David Plunket was a necessary sequence, which declared

that, in the opinion of the meeting, no steps should be taken by the Corporation towards carrying out their Main Drainage scheme, pending the result of the application to be made to the Lord Lieutenant. Although this resolution was seconded perforce by a prominent member of the Corporation, we have little faith in the promises made on behalf of the municipal body. We are certain they will still try to out-manceuvre the action of the Citizens' Committee, and that before many days we will behold another illustration of the "two faces under one hood."

We can commend the remarks of all the speakers who spoke on behalf of the citizens, including Sir Arthur Guinness, Mr. Joseph Pim, the Hon. David Plunket, Dr. Evory Kennedy, and others. There could be no valid excuse urged against their calm and cogent remarks. The arguments we so often adduced on the head of Corporate neglect and incapacity were traversed by nearly all the speakers; and it is a satisfaction to us to see that our humble, but earnest and persistent, advocacy for years back has been endorsed. It could scarcely be otherwise, and there could not be any other outcome than what evolved from the Citizen's Meeting.

What a miserable exhibition the work performed by the Corporation makes as against the expenditure incurred in promoting bills, paying law expenses and salaries to a needless staff of officers, as well as heavy pensions to hale and healthy public servants, who are induced to retire to make room for other hangers-on! There is not a city or chief town in Great Britain in which sanitary duties are so badly performed, though the payments to officers exceed by far that paid in other places. Were we to go through all the special and particular duties devolving upon the Corporation, the same shameful neglect could be shewn; and what should be a source of profit, and what is a source of profit in other towns and cities, is in the hands of the Dublin Corporation a dead loss! The citizens are taxed to almost the confiscation of their properties to support the worst specimens of municipal rule that ever yet cursed the British Islands.

We want still another commission—a commission that would bring with it a needful reform. If the Government by a minute of Council were to put the Civic body in commission for a year or two, a lesson would be taught that is much wanted. Short of this, however, a purification of the Town Council is urgently needed, as well as that of the Liffey; and if the citizens follow up the movement they have begun, honest and practical men will be returned as their representatives. This last purification is as indispensable as the former, and the sooner it is effected the better it will be for the social, sanitary, and common-weal welfare of Dublin. The Corporation are notoriously prone to yield to the temptation to express opinions on matters outside their own jurisdiction, and over which they can have no authority.

In conclusion, we will only add that the citizens are to be complimented for the resolution they have arrived at at last, and we hope the ratepayers of the city will support the efforts of the Committee in their earnest efforts, for in doing so they will find that they are taking the best steps to reduce the weight of taxation that is down-pressing them to earth.

#### THE ROYAL INSTITUTE OF BRITISH ARCHITECTS *v.* PUGIN.

AT the opening meeting of the Institute it was announced that, in conformity with bye-law 16, section 3, Mr. E. W. Pugin had ceased to be a member. This bye-law was framed to prevent any architect acting as a builder while a member of the Institute; but, in the enforcement of this bye-law, some issues are likely to be raised, not only by Mr. Pugin, but by others who have no desire to act as his defenders apart. Unfortunately for Mr. Pugin, he has an impulsive temperament, and an impassioned utterance, that works him ill. He has his eccentricities, if you will; but, had he less courage and more discretion, it is probable that many worldly friends would be found on his side, and his professional brethren of the Institute would shrink from enforcing the bye-law alluded to. With no desire to defend a certain recent line of conduct adopted by Mr. Pugin, which became, and is still, a matter for our law-courts, we cannot help believing that certain members of the British Institute are his open and avowed enemies, and that, privately as well as publicly, some of them would not hesitate to work him injury. Until convinced of the contrary, we will continue to believe that the putting in force of the bye-law against Mr. Pugin was not for its alleged infringement, but for other notorious reasons, some of which are alluded to in Mr. Pugin's letter.

The present time is scarcely a favourable one for architects in general; and it cannot be denied that, inside as well as outside the Institute, the members of the profession are receiving hard knocks, and we cannot say that some of them are not deserved. The engineers, as a body, are strong and influential; but our architects, by their petty jealousies and want of cohesion, possess little public confidence—in fact there is no proper *esprit de corps* among them, and the profession will not be elevated so long as architects themselves behave to each other as they are doing. There is scarcely a public work of importance but the successful competitor is assailed either in the columns of a newspaper or a professional journal, by a disappointed member of his own body, or by some architectural scribe who has not succeeded as a practising architect. From the *Quarterly Review* down to the halfpenny *Echo* in London, the new Law Courts, or the proposed decoration of St. Paul's, the "master workman," or the architect, the curse of the present or the hope of the future, is not made the subject of discussion. The *soi disant* and the *bonâ fide*, the architect presumptive and *de facto*, each in their turn enter the ring, and what can be the result of such a free fight but shame, weakness, and disaster?

Are the members of the Royal British Institute, or the Royal Irish Institute without sin, that they can boldly throw the stone? Verily they are not. Admitting for the moment, for sake of argument, that Mr. Pugin is guilty, is he the only member who has meddled with bricks and mortar, and acted as a builder while a member of his Institute? How many of our architects have played, and are at this moment playing, into the hands of builders to the ruin of their clients? How many of them give certificates when they should not, and how many of them knowingly play false to their professional brethren in the matter of public com-



petitions, their interests being secured beforehand. We could unfold a tale in these matters which might not surprise architects themselves, but it certainly would surprise the outside public, many of whom still believe that an architect's is an honourable profession.

We do not hesitate to say that both in the Royal British Institute and the Royal Irish Institute there are architects who, if strict justice should be meted, would no longer be members of these bodies. We hope the decision in Mr. Pugin's case will be canvassed thoroughly, and that all transgressors will be equally punished. Architectural practice, as at present conducted, is full of abuses, and a little ventilation would be serviceable. If an architect is guilty of a dishonourable act or acts in defiance to the laws of his body, he has a right to be visited with the penalty; but his other frailties and follies or disputes have no right to be dragged in and weighed against him in the balance, through professional grudge or personal pique. This, however, seems to be the case in the Pugin affair, and the surroundings are sufficient to warrant our belief. We wish, for his own sake and for the sake of the profession also, that Mr. Pugin had less to do with law courts; but some persons have a fancy for the law, and it is hard to see if a man feels really aggrieved he should not resort to a court of law. Mr. Pugin has many friends in this country who esteem him both on account of his ability, as well as being the son of a worthy father, to whom the architectural profession owe much. The lovers of Christian Architecture can never forget the services of the late Mr. Pugin. He was in sooth the father of the "Gothic Revival," and to his marvellous genius, labour, and example, we owe the uprise of these noble Gothic ecclesiastical edifices that stud the land to-day.

The elder Pugin as well as the younger had to battle against professional jealousies, and attempts have been made since his death, as in his lifetime, to rob him of merit. His fame, however, is safe, and there is little danger now of the elder Pugin being dragged down from the niche where his fame has placed him. We hope his name will never suffer even a temporary eclipse by any erratic or wayward conduct that may be charged against his son. The decision of the Institute will be powerless, we opine, to injure Mr. Pugin in a pecuniary sense, and it will scarcely deprive him of one client; but, apart from the mere commercial view of the question, we hold it was most ill-timed on the part of the Institute to act as they have done.

In view of what has recently transpired and is still pending in respect to Mr. Pugin's claims and the charges made against him, it would have been the duty of his professional brethren to have waited till public feeling and excitement had abated. We repeat once more that the decision of the Institute will raise issues, and will also lead to revelations that will not redound much to the credit of architects or to the practice of their profession.

#### THE FLOATING HOSPITAL.

SOME months ago a member of the Corporation who took the credit of originating the idea of a Floating Cholera Hospital was complimented for his efforts, although the suggestion of the hospital was first made in these columns, and in those of our contem-

porary, the *Builder*. Everything connected with the management of this hospital, however, has been mismanaged.

At a late meeting of the North Dublin Guardians a letter was read from the Local Government Board, with reference to the expenses incurred by the Dublin nuisance authorities for maintaining the Cholera Floating Hospital for the reception of sailors arriving in the port. The total expense was £1,709, of which £450 fell on the North City, £648 on the South City, £276 on the South Union, £160 on the North Union, £139 on the Pembroke Township, and £24 on the Clontarf township. A detailed bill of expenses was objected to by several guardians, on the ground that some of the items were too high, especially those charged by the doctors for car-hire. These sums, it appeared from a statement of one of the guardians, ranged from 5s. to 17s. 6d., and in many instances the distance was only as far as the North Wall. An item of £14 charged for chairs was also specially objected to.

Mr. O'Neill said he did not know where they could put the chairs at the hospital. Sir Patrick Dun's Hospital was the right place for cases of cholera, instead of the floating hospital.

Mr. Tickell said there was no necessity at all at present for the existence of the floating hospital. Ultimately the matter was referred to the Finance Committee for consideration.

The property of the living ratepayers is almost confiscated by taxation, and even out of the dead in their shrouds and coffins, a commission is made. What, we wonder, are parish coffins supplied at per head, and how many paupers from the two unions are buried in the charnel pits of Glasnevin? Some years ago "The Confessions of a Grave-digger" were published, but we think the time has arrived for a second edition.

#### NEW WESLEYAN CHURCH AND SCHOOL, LISBURN.

THE foundation-stone of a new Wesleyan church and school has been laid at Lisburn by Philip Johnston, Esq., J.P. The site (which is the free gift of Sir Richard Wallace) is one of the best in the town—at the foot of Seymour-street, at the corner between the Belfast and Hilden-roads. Ample space will be afforded for two manses for the ministers. The church (60 ft. by 36 ft.) is intended to seat 430 persons. For the present an end gallery only will be provided, but provision will be made for side galleries, should they be required hereafter. The slope of the site from the Belfast-road to Hilden-road has been taken advantage of, and a school-room has been provided below the church. The church will be entered off the Belfast-road by a rising path and flight of steps, with an open vestibule, having detached columns of County Down granite, and the school-room will be entered off the Hilden-road. The difference of level between the school and the church floors will be about fourteen feet, and both floors will be above the level of the respective roads from which they are approached, so that anything like a sunken floor will be entirely avoided; and even the school-room will be open, well lighted, and properly ventilated. The style of the building may be considered a modification of continental Gothic. No special style will be strictly followed, the principle governing the design being an appropriate employment of inexpensive materials, with due regard to fitness of purpose together with the requirements and comfort of the congregation. The entire building will be faced with Belfast brick, and will have dressings of Dungannon sandstone, relieved by a few columns, carved caps, and enriched cornice on the front. A large circular stone window will be provided in the front gable, and a similar light in each of the gables of the side wings. The church will be well lighted, comfortably heated, and thoroughly ventilated. Committee, vestry, and caretakers' rooms will be provided at the rear of the church, and will be entered off

the main road. The church and schools will be erected in accordance with the designs, and under the superintendence of Mr. Wm. Gray, A.R.I.A.I., architect, Belfast. The builders are Messrs. Thompson, of Ballymacarrett, Belfast. The cost will be £4,000.

#### THE LAST OF NORTHUMBERLAND HOUSE.

ON the 10th inst. the remaining portion of the building materials of the historic house of the Percys at Charing Cross, London, were sold by auction. As we informed our readers some months ago, the building, with several others in the vicinity, are coming down to make room for the new approach to the Thames Embankment. The portion sold in September last consisted of the east, west, and south sides of the quadrangle, with the garden frontage, and that disposed of this week was the block at the north side of the quadrangle, with the ornamental Strand frontage, built in 1603, containing several inscriptions. The sale also included the building containing the stables adjoining Northumberland-street. The entire number of lots was 132; the Strand elevation, which was the most interesting portion of the materials, being divided into 12 lots. The ornamental stonework of the central portion of the frontage, which was described as of Jacobean character, and which included the upper pediment (upon which the lion formerly stood), with the inscriptions, "Espérance en Dieu," and "Alg. D. S. 1749, C. N. Rest," together with the oriel window beneath, the whole ornamented with carved work, crests, and monograms, was knocked down for the comparatively small sum of £36. The gateway beneath, covered with copper, and made to represent a portion of the structure, with niche and copper cross half-buried, was sold for £25. The south elevation of the Strand block, forming the north side of the quadrangle, was sold for the sum of £53 15s., of which the rusticated stonework of the gateway, with figure-head carved key-stone, fetched £23. The entire proceeds of the day's sale amounted to £1,450, which, added to the sum of £5,100 realised by the three days' sale of the other portions of the structure, brings the aggregate amount of the materials of the mansion up to £6,550. The greater portion of the materials of the quadrangle have already been taken down, and the hoarding is already up for the purpose of demolishing the Strand frontage, which will be at once commenced.

#### THE IRISH HEALTH ACT.

IT will be seen from our "Sanitary Notes" that the new Public Health Act for Ireland is not working well, not alone from its inherent defects, but because of the obstinacy and obstructive action of the members of our new sanitary boards. The Local Government Board will have to act with firmness, and indulge less in long-winded correspondence. The act is passed, and if it is not to be a dead letter, it must be enforced in every district throughout the kingdom. No act has ever yet been framed but has had defects, but these defects must not be accepted as an excuse on the part of our new sanitary authorities for inaction on their part. Until the law is amended, the Local Government Board should see that the provisions of the act are put in force. We cannot have a public health established without administration, and sanitary duties imply costs as well as other duties. The preservation of health is worthy of support, and if sanitary work is faithfully performed, no rational person can grudge to be taxed for its performance, considering the many important issues that bear upon it. With medical officers grumbling, on the one hand, over their inadequate salaries, and with guardians and ratepayers taking up the grumbling refrain from the point of view where the shoe pinches, we must confess the prospect of honest sanitary administration in Ireland looks anything but promising.



PUBLIC RIGHTS AND PUBLIC  
NUISANCES.

## ON OVERCROWDING AND VENTILATION.

## SEVENTEENTH ARTICLE.

OVERCROWDING is one of the direct causes of epidemic disease. It is an evil of great magnitude, for it not only leads to the decimation of a large quota of our population, but to the demoralisation of the living. It is not only in common lodging-houses the evil may be seen, but in hundreds of the tenement rooms of our city, and in the cabins inhabited by our agricultural labourers. "Overcrowding," writes Mr. George Godwin, in one of his excellent sanitary works, "Another Blow for Life," "means want of pure air, and want of pure air means debility, continued fever, death, widowhood, orphanage, pauperism, and money loss to the living." The 19th section of the Sanitary Act, 1866, provides that the word "nuisances," under the "Nuisances Removal Act," shall include "any house or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates;" and by the 35th section the nuisance authority is empowered to make sanitary regulations for lodging-houses. By the 48th section of the Public Health (Ireland) Act, the Local Government Board may at its discretion, by notice to be published in the *Dublin Gazette*, declare the enactment contained in section 35 of the Sanitary Act of 1866 to be in force in the district of any sanitary authority. Regulations made under said section may extend to ventilation of rooms, paving, drainage of premises, and to notices to be given, and precautions to be taken in case of any infectious or contagious disease.

The 49th section of the Irish Act further provides for notices of common lodging-houses and slaughter-houses to be affixed on the premises, where the same can be seen by any inspector or officer of the sanitary authority. If the provisions of the act are enforced in respect to lodging-houses duly registered, little danger is likely to occur, but constant visitation is necessary on the part of the officers of the sanitary authority to see that the provisions of the acts bearing upon the matter are not infringed. It is the duty of the medical officer of health to decide on what may be considered overcrowding. The amount of cubic feet of space allowed by the Local Government Board, following the Poor-Law Board, is 300, but this must be considered the very lowest reduction compatible with health breathing for each person in dormitories. It is stated that about 2,000 cubic feet per head per hour are required to purify the air respired by an individual, consequently, where only 300 cubic feet are allowed, the air has need to be changed three times an hour. If not changed, of course the air must become foul and unfit to breathe. Putrescent organic matters are exhaled from the lungs and skins of the persons living in it, and it is in such an atmosphere as this that infectious diseases are developed, if not actually generated. Naturally weak constitutions breathing such a foul atmosphere are certain to be stricken down and suffer severely. With a number of persons housed together for hours, breathing the same impure air, the amount of oxygen is decreased; and if in the case of the poor, there is an insufficiency of food, clothes, and fuel, the danger is the greater. There is mostly a deficiency of blood noticeable in people, especially women and children, who inhabit overcrowded dwellings. The proportion of carbonic acid and of moisture in the air is also increased under such conditions as we have described. Underground and cellar dwellings should be abolished everywhere; but already some special enactments are in force in regard to them, and we hope the sanitary authorities of this city will instruct their officers to keep a watch over any that still exist, with a view to their future entire extinction. There is an absence of ventilation in mostly all underground dwellings and cellars, and, as a consequence,

there is but little pure air, and, as is often the case where these underground dwellings are overcrowded, they are little less than fever nests of disease. Many of them are below the drainage of the streets, and there can be no proper convenience for the usual wants of the family.

In all apartments or rooms in which persons live there should be ample air, and the supply should be continuous in its supply and escape, without any draughts. Ventilation is both natural and artificial, and the former comprises all methods by which air is renewed without resorting to mechanical appliances or apparatus for forcing it in any particular direction. Leaving aside the theory of ventilation, we may remark here that the winds are very powerful agents, and in summer it is only necessary to open the windows, and the slightest inlet of air suffices completely to change the air of a house. Winds are utilised for the ventilation of large buildings by means of cowl turning always towards the wind, and communicating with a tube that descends underneath the house into a warmed chamber, from which the air passes to various parts of the house. This system is known as Sylvester's plan, and by the same method the holds of ships are often ventilated.

Now in a house the impure warmed air of a room rises to the top, and advantage should be taken of this fact, and openings made for its outlet or escape. These exit openings, whether there be a fire in the room or not, will have a contrary effect unless sufficiently ample openings are made lower down in the room, and as equally exposed, by which the denser air can enter. Air may be conveniently introduced to rooms by openings over the lintel of the door; and if these be so constructed that the cold air presses upwards to the ceiling, no draught will be felt.

There are various forms of ventilators introduced and recommended to public notice, but it is not our purpose to speak of their merits in detail. In Mr. Ernest Hart's "Manual of Public Health," Sherrington's valve is favourably spoken of. Arnott's valve is also spoken of, but it has certain disadvantages. The latter is intended to provide for the exit of heated air from the tops of rooms. A "simple and excellent ventilator" for rooms which project from houses, and have no other rooms above them, or for water-closets in similar situations, is McKinnell's, according to the above authority.

Chimneys in winter or summer perform good service as extraction shafts, and their value as ventilators would often be enhanced if means were provided elsewhere for the entrance of fresh air. In large chimneys there is often an up-current as well as a down-current; but if a sufficient inlet to the room be provided to allow the dense air of the lower strata to come in, a continual current will be established up the chimney, and there will be no smoking, as there will be little chance of any air coming down it. Smoky chimneys must be looked upon as an intolerable nuisance, and, coupled with other evils attending on defective construction and overcrowding, producing a combination of effects simply unbearable in the midst of a civilised community.

"We want a class of houses," said Mr. Godwin, "formed with especial reference to their inevitable occupation by more than one family, looking like ordinary residences, but with a separate entrance to each floor, and with separate conveniences." But that is what we have not yet in Dublin, nor even in London, except to a small extent. Whole families are housed in single rooms in tenement houses, the said room, of course, being the living and sleeping room, the workshop in life, the hospital in sickness, and the mortuary at death—a death-house, in fact, for the living and the dead.

The subject of overcrowding, and its attendant evils, is too wide a one for discussion in a single article. Our object is to shew the nature of the evil, how it may be circumscribed or prevented to point out its cure by honest endeavours and the aid of the law,

and to lead to the punishment of evil-doers, whether it be those who suffer from their own obstinacy to do what is right and is morally and legally required of them, or those who are appointed in the interest of the public health, and who neglect their duties. The Irish Health Act, which embodies the provisions of several previous sanitary Acts, is sufficiently stringent in some respects to lead to the reform of certain of the evils we have pointed out; but it will need to be enforced, for its utility alone will be in its strict enforcement. As a whole, we are not sanguine that the new Act will be successful; but it is a step in the right direction, and an amendment must come to the Act by and by. One of the wants of the present and the future is a Building Act; but of this and other matters we will speak hereafter.

THE ALPHABET—WRITING: ITS  
ORIGIN AND PROGRESS.

WE have no proof of inscriptive writing existing in antediluvian time, and the question naturally arises, How has Scripture history of that period been preserved to us. That characters representing ideas or words were in use immediately after the Deluge we have ample record in the bricks of Babylon, several of which are preserved at Trinity College, Cambridge, in the British Museum, and the East India Company's library, Leadenhall-street, London, all excavated from the desolated ruins of that peerless city—queen and mistress of peoples and of nations, whose palaces and temples were one vast scene of gorgeous magnificence; therefore, it is not unreasonable to suppose that these mysterious characters were derived from a period much further remote—perhaps from the beginning of the world.\* A full-sized engraving of one of those bricks is given at p. 5 of Hansard's "Typographia"; the inscription upon it appears in vertical columns divided by lines, and consequently reads downwards.

Uncivilised man, from the beginning of time even to the present day, has continued to express himself by symbols, or representations of what he would make known by oral sounds, when the latter are not likely to be understood by his auditory. To give an example easily intelligible at the present time, we will introduce a scene—perhaps it is a sea beach, and there a naked untutored savage stands drawing with a sapling upon the sand the ideas he wishes to be conveyed to his more favoured fellow man. This is a first attempt at writing, and thus in its earliest and simplest form we find it recorded as practised by the Mexican scouts when bringing news to their master, Montezuma, of the arrival of Cortez, by sketching as nearly as they could the appearance of the Spaniards, their ships, horses, and firearms.

In progress of time primitive symbols of this type became utilised, and were made to

\* Josephus states, in chapter ii., "Antiquities of the Jews," that Seth, the son of Adam, built two pillars—one of brick, the other of stone,—upon which he made inscriptions to perpetuate his astronomical discoveries to future ages, because Adam had prophesied that the world "was to be destroyed at one time by the force of fire, at another by the violence of water"; and he concludes thus:—"Now this remains in the land of Siroia to the present day," meaning thereby these inscriptions existed at the period of his writing. Geologists, however, have since questioned how these two pillars escaped destruction in the alluvium of the Deluge, or that they could be visible in Josephus's time. Further on, in chapter iii., in alluding to the date of the Deluge, he expresses himself thus:—"Now he says this flood began on the twenty-seventh [seventeenth] day of the aforementioned month, and this was two thousand six hundred and fifty-six [one thousand six hundred and fifty-six] years from Adam, the first man; and the time is written down in our sacred books, those who then lived having noted down, with great accuracy, both the births and deaths of illustrious men." If Josephus be correct in this, we must infer that writing was known in some form or another from the earliest era of the world's history.



assume a rude form of character, conveying to the eye the sounds of their original signification; but, as ages elapsed, many of these letters in embryo, becoming more artistically formed, lost all trace of their first origin. We will illustrate the invention of the alphabet from phonetic sources by a single example, which, perhaps, will be sufficient to convey our meaning. The word *mem* in Hebrew signifies *water*, which would be represented in symbolical or pictorial drawing by zig-zag or undulatory lines like the ripple of the tide; and this, as time progressed, could soon assume the form of the Hebrew letter M, pronounced in that language *mem*, meaning in English, *water*. We have given M as the easiest exemplification, but the greater number of the letters of the alphabet can be similarly traced to phonetic origin.

The invention of the alphabet which must be attributed to such beginning, is, if considered rightly, to be recognised as amongst the greatest of the different causes which have promoted the civilization of mankind, and therefore, *a priori*, perhaps the most important of all. Almighty power created man perfect so far as the organisation of his own voice, and endowed him with talents to invent characters to represent it, as we have attempted to shew; thus was the alphabet formed, without which writing never could have existed, but when and where it first came into use we find no traces in history; all we know is, that the Decalogue was written or graven, by the express command of God, upon two tables of stone, and that these and the five books of Moses are the earliest known records of alphabetical writing; therefore, we are to presume that the *aleph* and *beth* of the Hebrews are the original of the *alpha* and *beta* of the Greeks, and of our own A, B, C. In Scripture history we find *alpha* and *omega* designated as the first and the last; therefore, many erudite writers contend that the alphabet emanated through Divine intimation\*—perhaps the Decalogue in its original conveys this interpretation; but to enter upon such enquiry would lead us farther than the intended purpose of our present paper, and might possibly appear foreign to the ideas it is intended to explain. And yet it is discouraging to the theory we have given, to find at page 190, vol. II., in "Nineveh and its Remains," Mr. Layard, in alluding to the cuneiform Assyrian inscriptions discovered in his excavations, thus writes:—"Letters differing widely in their form, and evidently the most opposite in their phonetic power, are interchangeable, the shortest name may be written in a variety of ways, every character in it may be changed." After all, when this is properly considered, it does not affect the argument we have advanced. If the time ever arrives when Lord Macaulay's prophecy shall be realised, and a New Zealand stands upon a broken arch of London Bridge surveying the ruins of the most magnificent city of the modern world, possibly the inscriptions to be discovered in its excavations, from contraction of words, changes in the form of characters through successive ages, &c., will appear in their alphabetical arrangement to bear very opposite interpretation to foreign readers, particularly if these inscriptions are confined, as Mr. Layard's necessarily has been, to monumental writing. Few, we fear, even the most learned, could then interpret them, as so many different forms of letters have been introduced since Norman characters prevailed in our judicial forms, German text in our manuscript, and modern pica and primer in our every-day book.

The most ancient specimen of alphabetical inscriptive writing now known to exist, is the tablet excavated upon the promontory of

Sigeum, situate near the site of Ancient Troy, and it affords an example of letters engraved upon stone in early Greek characters, at least 3,000 years old. A reduced *fac simile* copy of it is given at page 13 of Hansard's book before mentioned, where it is thus described:—"The inscription begins on the left side of the face of the tablet, proceeding on to the right, and the following line commences on the right hand side of the tablet and runs on towards the left; and thus it continues to go on, each alternate line beginning on the same side on which the preceding line finishes."

The Chinese, who were the first inventors of both printing and paper, strange enough have as yet no regular alphabet, their written language is still ideographic. Egypt, the oldest known region of civilisation, early adopted hieroglyphic or pictorial emblems in its inscriptive writings, and they still remain to us indelible proofs of phonetic symbols, as proved by Drs. Young and Champollion. Sculptured words on stone, or engraved upon clay, which was afterwards dried and hardened in the sun or by fire, as the Babylonian bricks,\* are the earliest written memorials of history we possess. When it became desirable to make portable manuscript records copying upon boards covered with wax, the skins and intestines of animals, and, later on, thin plates of ivory and metal were introduced; but, wherever the delicate membrane obtained by unrolling the fibrous stem of the papyrus—a water plant which formerly grew in great abundance in the Nile—could be obtained, all these fell into desuetude, except parchment, which is still preferred for many purposes. From the Egyptians, the Greeks and Romans adopted the use of papyrus for writing upon, and when the excavations at Pompeii were first undertaken, numerous charred rolls of this material were discovered and deemed worthless, but afterwards, by careful process of unrolling, some have proved valuable additions to classic literature.†

Previous to the invention of printing, manuscript writing had possibly reached its highest artistic and pictorial development, although exquisitely-penned specimens in presentation addresses—chiefly the production of ladies—of the present time occasionally seem to surpass the work of the mediæval ages, when the monks were the book-makers of their era. Attached to all monasteries was a *Scriptorium*, or an apartment especially devoted to the use of those who worked upon these valued volumes, and such of these learned men as were employed upon this duty carried their writing materials, consisting of ink-horn and case for pens, constantly attached to their girdles, to indicate their distinct office. Writing then was generally practised upon vellum, for, although paper was invented by the Chinese, A.D. 95, it was not known in Europe until many centuries afterwards, being only first manufactured in England about 1580, and until then we were altogether dependent for supply upon France and Holland, therefore, it was expensive in these days.

Although printing was invented, as we have shewn in a previous paper, about the year 1440, and the duties of scribes ceased at that period—at least so far as book-making was concerned,—it is singular to remark how long after manuscript writing, as a medium of public information, continued. The early gazettes and news-letters, many of which are still extant, three of these kindly placed in our hands by Dr. Thomas Willis, sen., bearing date respectively, 19th July, 1672; 8th October, 1672; and 1st January, 1678, and containing all the current news of the day, are sufficient examples for our purpose, and prove them to have been the precursors, and afterwards contemporaries of our first printed newspapers.

During the war between Venice and the Turkish empire, in 1593, the government of the republic, being anxious that its citizens

should be informed on passing events, caused written sheets of intelligence to be read in a public place, possibly in the square of St. Mark, and for the privilege of hearing these a small coin (*gazetta*) was paid. By degrees the name of the coin was transferred to the written news, and official or government intelligence became afterwards known as a *gazetta*.\* The term news-letter is sufficiently obvious from our previous remarks, and requires no comment. At this period, in large cities, there were news collectors' offices, who paid what were then called news writers for obtaining information for them; these sought about in all quarters for news, which was afterwards embodied in manuscript letters and distributed to subscribers, or sold in single copies to purchasers; but the printing press eventually superseded such sheets, although a considerable time elapsed in the interval, because we find the town council of Glasgow, in 1711, keeping a news writer for a weekly letter, although a pigmy sheet called the "Weekly News" was printed in London so early as May, 1622, but it ceased upon the publication of the "London Gazette," in 1665, copies of which latter are now being reprinted as curiosities. The designation "news-letter" has been continued to the present time. In Dublin the broad sheet of Saunders still keeps up the name of its venerable ancestor.† Except by artists who prepare illuminated addresses, by school teachers, and those who practise as law scribes, manuscript writing is not now patronised as formerly, consequently, specimens to be admired do not come within every-day notice; still there are many excellent writers, an example of which is before us at present in the form of an explanatory note attached to the three copies of manuscript news-letters alluded to above, the writing contained in which would certainly have been no discredit to one of our ecclesiastical scribes of old, and the more particularly because it is from the pen of a gentleman now over his eightieth year.

The MS. of authors is proverbially bad. We know one intimately who often assures his friends he frequently cannot decipher his own penmanship; the unfortunate compositor is much to be pitied into whose hands such sheets may happen to fall, but our sympathy is often demanded in other quarters, for it is to be regretted the ordinary writing of general correspondence is often not easily rendered into our spoken language, while the angular saw-tooth scrawl practised by modern ladies—or women, as Mark Twain declares he is bound by Scriptural authority to call them,—if copied in inscriptive writing upon stone, and thus preserved for several centuries, would be far more puzzling to antiquarian research than the arrow-headed characters of Nineveh proved to be to Mr. Layard, and they would assuredly contradict all arguments in favour of the phonetic origin of the alphabet they use.

At whatever period the alphabet was first invented, must remain matter for conjecture; but that Europe derives it from its earliest sources, will be admitted. The children of Japhet, leaving the plains of Shinar, peopled the Isles of Greece, where they became distinguished in learning and all the refinements of art-culture—thus pioneers of the civilization of the modern world. Rome, in her greed of power, adopted all the acquirements of her Grecian subjects, and transferred them to the City of the Seven Hills, whence her legions spread them over the European continent; and it is strange to recognise in the dispensations of Almighty Power how that knowledge, the product of Asiatic sources, is reverting to the land where it derived its origin—through the colonisation of America, and thence onward to the shores of the Pacific; and it is probable the day is not far distant when Australia and New Zealand shall have propagated it over the entire of Asia.

W. H.

\* In Maurice's "Ruins of Babylon" the author arrives at the above conclusion, which thus occurs in the following passage at page 180:—"An art apparently so far surpassing human powers to invent as alphabetical writing in the perfection in which it has descended down to us from an Asiatic source, through the medium of the Greeks and Romans, could have its origin in inspiration only, and was first revealed to man amid the awful promulgations at Horeb amid the thunders that shook the basis of Mount Sinai!"

\* Layard's "Nineveh and its Remains."  
† Chambers's "Book of Days."

\* Chambers's "Book of Days."  
† Belfast also continues its *News-Letter*.



### THE GRAND ORGAN FOR ST. PATRICK'S CATHEDRAL, ARMAGH.

Messrs. Telford and Telford, of St. Stephen's-green, have just completed a splendid organ for the above cathedral. Organ building in Dublin, since its establishment here as a branch of native trade, has made rapid progress; and no house has been more successful in turning out high-class instruments evidencing improved skill and workmanship, than the firm above named. There exists no necessity on the part of our Church dignitaries or others, at present, for sending their orders outside the kingdom with the idea that they will be able to procure superior articles. Organs can be and are built in Dublin, as perfect in mechanism, as artistic in casing, and as finished in workmanship, as any procurable in London or upon the Continent.

This organ will be enclosed in a handsome Gothic case (of which we give a lithograph herewith), designed by Mr. J. J. McCarthy, R.H.A., richly carved and moulded, 40 ft. in height, and 30 ft. in width. The front pipes, which are portions of the double diapason, open diapason, and gamba of great organ, will be richly decorated. The three manuals and pedal clavier are placed in front on a raised platform, to enable the performer to see the altar and choir. The drawstops being placed at an angle of 45° to the line of manuals gives the performer great facility and control in moving them. The touch of each manual is as free and as light as could be desired, the "pneumatic lever" rendering the addition of the swell couplers (of which there are three) quite imperceptible. The air required is supplied by two large bellows with two feeders each, and are of novel construction, containing, with the reservoirs and wind-chests, about 750 cubic feet of air at different pressures, to suit the various descriptions of pipes and quality of tone desired. This is ingeniously arranged by several reservoirs. The great organ has two very large sound-boards, each eight feet long, on different pressures. The pedal organ will have six windchests, each twelve feet long; the swell and choir organs one each, eight feet long. The swell box has vertical louvres, balanced on brass centres, and contains about 500 cubic feet of space. The manual and pedal action is of superior make and arrangement, all the rollers are of tube iron, and the squares of a new construction, quite obviating all friction. There are six coupling actions; six composition pedals; pneumatic levers to great organ; tremulant on swell organ. The pedal organ from CCC to F—30 notes; eight stops; 240 pipes. The great organ, CC to G—56 notes; twelve stops; 896 pipes. The swell organ, CC to G—56 notes; ten stops; 672 pipes. The choir organ, CC to G—56 notes; seven stops; 392 pipes. Stops and couplers, 48; pipes, 2,200. 1 stop of 32 ft., 5 of 16 ft., 1 of 10½ ft., 16 of 8 ft., 8 of 4 ft., 1 of 3 ft., 3 of 2 ft.,—8 ranks of mixtures, and 8 reed stops.

On a recent visit to Messrs. Telford's manufactory, we were shewn the several parts of organs in their various stages. All the pipes—metal as well as wood,—the action, framing, cases, and ironwork, are all made on the premises. The metal of which the pipes are made is composed of tin and lead melted together in certain proportions, and run on a stone table on tichen in sheets of the required thickness. There are no metal

pipes made in Ireland except in this manufactory. We can with safety say that this is an Irish-built organ (all the cost for the workmanship being spent amongst our own workmen), while many of the organs recently erected under the name of "Irish" organs have had a great portion of them made in France or England—a rather strange way of encouraging native art.

On Tuesday afternoon a large number of the musical gentry of this city had an opportunity of hearing Mr. Glynn, organist of St. Saviour's Church, and Mr. John Horan, sub-organist of Christ Church Cathedral, perform a number of pieces of organ music on this instrument with much execution, skill, and feeling. On Wednesday Sir Robert Prescott Stewart performed a selection of pieces in his usual masterly style. We were perfectly astounded at the endless variety of tones produced: the voice, and every instrument in the orchestra had its close imitation; while the power at times was immense, mellow, and full, but without noise, even in the comparatively small room in which the organ was temporarily placed. When erected in the magnificent cathedral\* for which it is intended, we can well conceive how its full volume of tone will swell through the aisles of St. Patrick's.\*

### BUILDING OPERATIONS IN BELFAST.

The premises in Church-lane are amongst the oldest in town, and a great change is now taking place in this locality for the better. A number of the former dilapidated shops have been pulled down, and four lofty ones are now being erected in their place. The street being narrow, Mr. Gregg, who owns the property, has in a most praiseworthy manner set them back two feet from line of main frontage without asking any compensation from Town Council. The buildings are 40 ft. high to eave, with dormers above, having carved cut-stone finials on gables and roofs, secured with Ashton and Green's red ridge tiles. The front is cemented, and a good deal of ornament has been introduced. The shop sashes will be richly wrought, having carved caps, spandrils, &c., and moulded bases, and will be glazed with polished British plate glass in panes, each 10 ft. high; and exterior will be painted black, hatched with gold and varnished. The doors in front will have spring hinges, and embossed plate glass in upper panels, and porches will be laid with Minton's encaustic tiling of ornamental design. This style is Italian-Gothic boldly treated, and the whole will be finished in a few weeks by Mr. William Hunter, contractor, in a satisfactory manner.

Some of the shops in Hercules-street require to be remodelled, and for this purpose Nos. 87 and 89 have been pulled down, and a large one is to be erected on the site. The front will be built with red perforated bricks, having dressings and cornice of white Coal Island brick. The ceilings will be high, and the building will rise well above adjoining premises. The walls and ceilings of shop will be sheeted, and a neat perforated wooden cornice will be fixed round same. The work is now being rapidly pushed forward by the contractor, Mr. Thomas McArthur.

The congregation of the Reformed Presbyterian Church have determined to erect a new and commodious church at corner of Botanic-avenue and Cameron-street, in place of the one they have for so many years occupied in Linenhall-street. The floor of the church will be raised above the level of the avenue by the introduction of two flights of cut-

stone steps which, while giving dignity to the structure, is necessitated by the nature of the ground on which the building will stand. The church will be 40 ft. wide and 60 ft. long, entered through a spacious vestibule 8 ft. wide. There will be a gallery at one end over vestibule, having the staircase to same placed in tower. Underneath the church will be a large school-room 39 ft. 6 in. by 54 ft. and 12 ft. high, having entrance from side street; and at rear will be a two storey building containing caretaker's apartments, session, and minister's rooms, &c. The platform and rest of fittings of church will be selected pitch pine, stained and varnished. Special attention has been given to acoustics and ventilation, the ceiling being coved all round, and angles of walls and gables made circular. The lower or basement storey will be built with Scrabo stone, having dressings of red brick, the remainder will be red brick with dressings of Dunganston stone. The entrance doors will have cut-stone columns at each side, having moulded bases and carved caps, and over same will be large ornamental windows; a tower and spire, having rich arcaded cornice, will rise at corner to the height of 90 ft. The style adopted is Romanesque, having on front and sides pilasters, raised on main face with corbellings over. The excavations are now in progress, and the contractor, Mr. Matthew Mansell, expects to have all completed in eight or nine months from the present time.

The whole of these works are now in process of erection, and are being carried out in accordance with plans, &c., prepared by the architect, Mr. W. Batt, jun., of Donegall-place, and under his superintendence.

### A QUERY FOR CARPENTERS.

A SUBSCRIBER writes:—"Please give a general rule in your next publication for finding the rising wall for roofs of different pitches and spans, the bird's-mouth in the heels of the rafters to be only half an inch deep." The question might have been put in another form. However, we give it, in the hope that it may elicit more than one answer on the part of our operatives, many of whom, we regret to say, still find "the cut of the rafter" by "stretching a line," or the rule of the thumb.

### THE SHANNON DRAINAGE.

CONCERNING this subject and the offer of the Government, "A Proprietor" writes:—

As a great sufferer by the floods, I regard the measure as a compromise between the interests of the landlords and the views of the Government. As a just settlement, I do not consider it; but as the best we are likely to receive, I feel disposed to accept it. Like every compromise it is faulty, and fails to be a full measure of right. We have paid by county cess a sum of £300,000 towards the Shannon Navigation. This was to compensate Government for constructing a water-way which would bring trade and commerce, and cause considerable towns to spring up along the course of the river, and thereby increase, or rather create, prosperity in the country round. But no trade to speak of has come, no towns have arisen, the few along its borders being about the worst in Ireland, and no improvement—not to say prosperity—has been caused by the navigation. Therefore we hold it has been of very little advantage, except, I admit, as a check on railway monopoly. On the other hand the destruction of our property has been immense, and the discouragement of all good cultivation by the uncertain and precarious state of things which the floods create has been even more permanently injurious. And there can be no question that this has prevented any advantage arising from the navigation. The floods retard the agricultural progress of the district, and consequently all material advancement has been checked. The result is, that you will see a great deal of poverty and wretchedness along the country through which the Government navigation extends. Now, however, the present ministry have made a laudable effort to complete the drainage, and they offer a free grant of £150,000 towards this work, and they ask us to do the remainder at our own cost—or, at least, that we shall repay them that sum. But I think with you that we might have got better terms, and that

\* We gave with our number for April 1st, 1863, a double-page illustration of the exterior of this cathedral, and referred to it in subsequent issues. Our readers may remember that it was dedicated on the 24th of August, 1873, with great ceremony. See IRISH BUILDER, September 1, 1873.



THE ORGANO-CUBE:  
J. J. McCarty, B. M., Archt. &c.





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if the amount was to be paid off—say principal and interest at  $3\frac{1}{2}$  per cent. in 35 years, as you have touched upon—we would have been more equitably treated. It is not to be forgotten that, by the time the advanced principal and interest has been paid off at 5 per cent. in 35 years, the Exchequer will have received from us nearly a quarter of a million sterling.

### RECLAIMABLE TIDAL LANDS IN IRELAND.

WE would direct attention to the pertinent remarks contained in a letter of Doctor MacCormac, which appears in this issue. We have several times pointed out the waste lands of this country, and how they could be reclaimed and made most productive. We hope, now that public attention is seriously roused to the consideration of the important subject, that practical efforts will soon be observable in different quarters of this country. We append a list of reclaimable lands, comprising a large number of foreshores where not the least engineering difficulty stands in the way:—

|                               |                           |
|-------------------------------|---------------------------|
| Lough Foyle.                  | Brandon.                  |
| Luagh Swilly.                 | Dingle.                   |
| Mulroy.                       | Kenmare.                  |
| Sheephaven.                   | Bantry and other Harbours |
| Geebarrow & neighbourhood.    | and Estuaries in Cork.    |
| Langhros More and Beg.        | Youghal.                  |
| Inver and Donegal Bay.        | Dungarvan.                |
| Milk Haven.                   | Tramore.                  |
| Drumcliffe, Sligo, and Bally- | Waterford.                |
| sodare.                       | Bannow.                   |
| Killala.                      | Wexford Murrough and Flat |
| Broadhaven.                   | Districts.                |
| Blacksod.                     | Dublin Bay.               |
| Tullaghan.                    | Malahide.                 |
| Newport.                      | Boyne.                    |
| Westport.                     | Dundalk.                  |
| Estuaries in Galway County    | Carlingford Lough.        |
| and Bay.                      | Lough Strangford.         |
| Fergus and other Estuaries in | Belfast Lough.            |
| Shannon.                      | Larne.                    |
| Tralee Bay.                   |                           |

Total, about 240,000 acres.

### IMPROVEMENTS IN THE BANK OF IRELAND, DUNDALK.

THE *Dundalk Democrat* thus describes some recent works at the above building:—"The business offices of this bank have, within the past two months, undergone a thorough remodelling. The principal public office has been much enlarged by the building of an addition at the demesne side of the building, and is fitted up in a splendid style, so as to afford every accommodation to the public. A large counter in solid mahogany, with the usual apartments for the different clerks, which is topped with ornamental glass, has been erected, and reflects the greatest credit on the contractor, Mr. James Lennan, Dundalk. The mahogany work, which is French polished, was cut and prepared by Mr. Lennan, and, with the remainder of the work, has given general satisfaction to the bank governors and officials, as well as to the architect, Mr. Sims. The cost of the improvements exceeds £300, and have made the bank the largest in Dundalk."

### THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE first ordinary meeting of the session was held on the 2nd inst. under the presidency of Sir Gilbert Scott, R.A. Before reading his presidential address, he informed the meeting that he had an unpleasant duty to perform. At a meeting of the council held in July last, it was resolved that, in conformity with bye-law 16, section 3, of the rules of the Institute, Mr. E. W. Pugin be declared no longer a member of the Institute. At the close of his address the president formally presented to Mr. Pearson, the gold medal of the Institute, which was previously declined by Mr. Ruskin. Professor Donaldson, in proposing a vote of thanks to the president, reviewed some matters touched upon, and after bearing testimony to the ability of Sir Gilbert, concluded by saying that the proposed decoration of St. Paul's Cathedral should be carried out in the spirit of Sir Christopher Wren, and treated with calmness and purity. The secretary announced a paper

to be read on the 16th by Mr. J. McVicar Anderson, on "Orwell Park Observatory," Mr. Airy, C.E., having promised to attend to describe the scientific portion of the work. Before the close of the meeting the president stated that the council had not at all been successful in securing members to read papers during the coming session. We may have some observations to make on part of the presidential address hereafter.

### THE INSTITUTION OF CIVIL ENGINEERS, ENGLAND.

At the first ordinary meeting of the session 1874-5, held on Tuesday evening the 10th, Mr. Thomas E. Harrison, President, in the chair, the paper read was on "The Nágpür Water Works; with observations on the Rainfall, the Flow from the Ground, and Evaporation at Nágpür, and on the Fluctuation of Rainfall in India and in other places;" by Mr. Alexander R. Binnie, M. Inst. C.E. The announcement for next meeting was: "The Pennsylvania Railroad; with remarks on American Railway Construction and Management; by Messrs. C. Douglas Fox and F. Fox, MM. Inst. C.E."

### CIVIC LYRICS.—No. LXXIII.

#### MEA CULPA.

The wisest and the best of men,  
Mea Culpa,  
Have been attacked by tongue and pen,  
Mea Culpa.  
Ere life departs, I'll make amends;  
My foes shall be my best of friends,  
Alas! they failed to gain their ends,  
Mea Culpa.  
Some darling projects have been spoiled,  
Mea Culpa;  
And itching hands have not been oiled,  
Mea Culpa.  
I stung the hands outstretched to clasp!—  
Oh, I have been a very asp!  
Good men have dropp'd what they once grasp'd,  
Mea Culpa.  
It grieves me sore the truth to tell,  
Mea Culpa.  
Many still live, but are not well,  
Mea Culpa.  
Why did I spoil their little game,  
And rob them of their fair good name?  
I hang my head, and moan with shame,  
Mea Culpa.  
The Liffey was not set on fire,  
Mea Culpa.  
In lieu blazed up the city's ire,  
Mea Culpa.  
If egotistic to excess,  
I'll own some help came through the Press;  
But, oh! the guilt is nevertheless,  
Mea Culpa.  
The best and purest public men,  
Mea Culpa,  
Have been a butt for tongue and pen,  
Mea Culpa.  
No more I'll raise my hand to smite,  
Unless I live the truth to write,  
Which won't be hid from public sight,  
Mea Culpa.

CIVIS.

### THE O'CONNELL STATUE.

MATTERS in respect to the O'Connell and Grattan Statues do not look very bright. While the committee are busy in agitating the matter of a centenary celebration, the artists who are to finish the work appear nowhere. As to the political part of the subject we wish to have nothing to say; but we do think that if the business of the committee had been managed properly, the O'Connell Statue might be now in course of erection in Sackville-street. Nay, if matters had been pushed on properly two years ago, John Henry Foley would have seen the completion of his work before his death. At the last meeting of the committee the Rev. John O'Rourke, one of the commissioners appointed to ascertain the state of the monument, submitted the report. It stated that they had

proceeded to the late Mr. Foley's studio on the 9th instant, and carefully inspected the entire work. The modelling of the fifty ornamental figures which surround the statue was complete, and undoubtedly was so before Mr. Foley's death, with the exception of what is called the undercutting of some of the figures in high relief. The four winged Victories are incomplete; nothing has been done to them except the modelling of the heads—the most important parts—which had been done, a considerable time ago, by Mr. Foley. These figures, if in a standing position, would each be ten feet high. The principal figure—"Erin"—represented with a scroll in one hand pointing to the statue of O'Connell, and trampling on broken fetters, is in a finished state, and stands seven feet six inches high. The statue of O'Connell itself is thirteen feet high, and is completely modelled; that this was done in the life-time of Mr. Foley there can be no doubt—he had given the finishing touches to the head a few weeks before he was seized with his last illness. The feet, where the trousers fall on the boots, only require to be touched to complete the model. The shields, emblematical of the four provinces, are not modelled full size, but that was not considered of much importance. Mr. Teniswood, the executor of Mr. Foley, afforded the commissioners every facility in inspecting the work.

### THE APPELLATION "LADY."

[OUR esteemed contributor, the author of the paper "The Alphabet—Writing: its Origin and Progress," which appears in this number, has forwarded us the following note referring to Mark Twain's remark upon the term "Lady." Being too late for our first impression it consequently could not appear in its proper place, but we willingly make way for it here.—ED. I. B.]

Although this celebrated American writer expressed himself that he does not find the appellation "Lady" as occurring in Scripture, we must attribute it to his want of acquaintance with the Hebrew language; because in chap. xvii. ver. 15 of the Book of Genesis we find—"God said also to Abraham, Sarai thy wife thou shalt not call Sarai but Sara." Now in Hebrew Sarai signifies "my lady," but Sara absolutely "lady."

### A BUILDING ACT FOR DUBLIN.

ON the necessity of a Building Act for Dublin—a want which we have several times discussed,—Mr. Thomas Newenham Deane, R.H.A., writes:—

"Although the sanitary question demands a prior claim, I look on a fair and equitable Building Act as only second in importance. Such an act might now be obtained without much difficulty or expense, if taken in hand by the proper authorities. It may be framed so as to assist and work hand-in-hand with the great question of main drainage, disposal of sewage, and the proper construction of house drains. It is a matter of surprise to me how so many persons are to be found bold enough again and again to face the legal difficulties, the expense, and annoyance they encounter from surrounding occupants whenever they attempt to improve their property or to erect a handsome structure in the place of a tumble-down house. From first to last the party who builds is the victim of a host of difficulties, all of which might be avoided, or at least mitigated, by a Building Act. The city authorities and surveyor are helpless, and cannot interfere, and the result is that the man of enterprise, when his building is finished, retires from the scene with the wholesome determination never to touch brick and mortar again. Now, why cannot this be avoided? All other cities have their building acts and district surveyors; the greater number of questions at issue are at once decided, certain works are carried out, and the cost is equitably divided. Here we have nothing of the kind, and law is the result. Let us have a good act, carefully framed, based on those already in existence, and we shall find no lack of persons ready and willing to spend their capital for their own advantage and the beautifying of our city."



### ANECDOTE OF THE LATE DUKE OF LEINSTER.

IN a work published in 1835, entitled "Ten Days in Ireland," we have met with an anecdote which we do not remember hearing before. The writer and his party, who visited his Grace's demesne during their tour, no doubt picked up the anecdote on the way; and, as the story is well told, it will not be amiss to reproduce it now. After paying a just tribute to the Duke and his "lovely Duchess," the writer proceeds:—"His Grace is a Protestant Whig, and universally respected here. In fact, he is fond of his home, and is always contriving something to employ the poor with. He is seldom seen in his park (which is very extensive) without either a spade or hatchet upon his shoulder, and from his plainness of dress is often mistaken for some of his own domestics. A pleasant instance of this was related to me. It was of a farmer passing on his way to Dublin, with a load of wheat placed on one of their sideless cars. When he arrived near the Duke's, a sack accidentally fell off; the farmer went to look for assistance, and, when he arrived at one of the lodges of the park, he saw a man with a pitchfork on his shoulder crossing the carriage walk. 'Hip, halloo! my good fellow; will you just come with me a short piece, and be after lending me a hand with a sack of wheat that had the bad manners to fall from my car? Look sharp! that's my fine fellow, and I'll be a good turn in your debt.' The Duke (for it was his Grace) made no hesitation, but went with him. After lifting and grunting for some time—during which the farmer called out some instructions to his helpmate, not distinguished particularly for their polished strain of politeness—they succeeded in replacing it upon the car. 'Well,' says the farmer, 'I thank you, my good friend, for your polite assistance; but you're the awkwardest fellow at lifting a sack that I ever came across. If you're not cliverer at something else than lifting a sack of wheat, I don't know how the devil you'll get through the world.' The Duke laughed, and good-naturedly said 'that he would take a lesson or two against a similar misfortune occurred in the neighbourhood.' 'Ay, do, my good friend; that's just what I advise you, and I'll be a glass of whiskey in your debt whenever I meet you convainent.' The farmer drove on, and when he was passing the lodge he asked a young woman that was standing there who the individual was that assisted him. 'Tell me, my pretty girl, who he is?' says the farmer, 'for he's an obliging man, though an awkward rogue at lifting a sack of wheat.' When informed it was the Duke, he laid his whip upon the horse, and got out of the country as fast as he could; and it was months before he could be prevailed upon to come that road again, after having treated the Duke, as he conceived, with such incivility. But when the Duke heard that he was using a road three miles round, on purpose to avoid him, he kindly went and made the man happy with himself. But the farmer says to this day 'he'll never ax another man for the loan of a lift till he knows whether he's a lord or duke, or no.'"

### CORRESPONDENCE.

#### RECLAMATION OF THE WASTE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I have been trying to turn the attention of the northern community to the reclamation of Lough Neagh. By lowering the bed of the Lower Bann some 30 ft. or 40 ft., about 100,000 acres might be reclaimed, 4,000 or 5,000 acres of the deeper portion of the lake could be left as a catchwater basin, while perhaps another 100,000 acres would be relieved from periodical inundations. The shallowest portion of the Lower Bann at this moment has only a depth of 3 ft. 6 in., so that this enormous body of water—Lough

Neagh to wit—is retained as in a basin, and cannot possibly escape. Irrespective of the immediate loss and waste, the immense evaporation chills the air and increases the rainfall. The slob lands of Lough Larne and Lough Strangford are eminently reclaimable. Allowing for catchwater drains, both these last-named loughs might, I believe, be made almost entirely dry. If only the racing of the tide were as thus arrested, an admirable harbour of refuge might be formed at Lough Strangford, on a coast where a harbour of refuge is very urgently required. Similar remarks are applicable to Inniskillen Lake, the banks of the Shannon, and numerous other lakes, estuaries, and rivers in Ireland.

Ireland presents a series of watery wastes, to the great loss of the inhabitants, and to the prejudice of the climate. A gentleman once took me to the summit of a hill in Monaghan. "From this hill," said he, "thirty lakes may, in clear weather, be counted around." The lakes in Ireland—some large and others small—are very numerous; for the most part they might be made dry by arterial drainage. Vast surfaces are occupied by poorly-productive bogs; and countless hill-sides, now waste and desolate, might be rendered rife with culture and productiveness. A survey of Ireland, with a view to extensive reclamation, would be most desirable. The reclaimed surfaces, converted into freeholds, might be sold on the principle of a terminable rentcharge, on terms that I believe would cover all outlay. The soil and climate, generally, would be benefited, and many thousand prosperous freeholders created.

A vast lake and an extensive marsh have been recently reclaimed in Italy. The sea of Haarlem has been completely drained, and the Dutch speak of rendering the site of the Zuyder Zee dry land, as it once was before the thirteenth century. I know not how many millions of Irish capital have been vested in foreign undertakings—millions that might be most profitably invested at home. It is not necessary that all the undertakings I speak of should be commenced simultaneously. If, however, but one such as I have recommended were undertaken and conducted to a successful close, other undertakings would doubtless follow, and the eventual results would be commensurately great.—Your's, &c.,

HENRY MAC CORMAC, M.D.

Belfast, 5th Nov., 1874.

#### AS TO A DECISION OF THE INSTITUTE OF ARCHITECTS.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—The daily Press having given publicity to the fact that my name has been removed from the list of members of the Institute of British Architects, I feel sure you will kindly insert this letter in your next publication.

Since the Pugin and Barry controversy, considerable differences of opinion have existed between myself and several of the prominent members of the Institute, so much so that my attendance at the meetings has been limited to one occasion only.

Indeed, so antagonistic has long been the prevailing feeling of the Council towards myself that on February 21, 1868, in a leading article which appeared in the *Building News*, entitled the "Pugin—Barry Pamphlets," the editor remarked that "Mr. Pugin's courage, or, rather, his confidence, in his cause must have been of no ordinary kind when he agreed to submit the matter to the Council of the Institute," and added, "His father's case would not have been tried by his peers." The truth of this last remark neither myself nor the public are at all likely to dispute, especially after perusing the singularly weak and injudicious address made by the President on Monday last.

My criticisms, contained in a pamphlet entitled "The Designs for the New Palace of Justice Critically Considered," did not tend to improve matters, especially with the present President of the Institute, of whose designs it was utterly impossible to speak with admiration.

This was the position of affairs until my dispute with Mr. John Rogers Herbert, R.A., who remarked to a gentleman whom I shall call as a witness in an

ensuing action:—"If the fact that Pugin has been meddling with bricks and mortar was brought before the Institute, where he has many enemies, he might get censured, which would do me considerable service. If I brought the matter forward, it would look like malice; but you, or some of your friends, might do this for me."

Shortly after this the case of *Pugin v. Molloy* (which was decided in my favour) was heard at the Guildhall before Mr. Justice Brett, upon which the Council of the Institute, who had been previously prepared, immediately wrote for the particulars. The details of this matter are too lengthy to enter into in this letter, but they will be made public in the ensuing action of *Pugin v. Sir G. Gilbert Scott and Others*.

On the 30th July, 1874, having been privately informed of the decision at which the Council had arrived, I wrote to Mr. Eastlake, the secretary, as follows:—

"The Council appear to have formed a singular interpretation of our rules, which were framed for the purpose of preventing impositions by architects on their clients, and the bye-law in question stipulates not that the architect shall be prohibited from giving, but that he shall be prohibited from receiving, any benefit derived from his clients beyond his recognised commission.

"When the Council are in a position to show that I have infringed the last clause, they will then be in a legal position to carry out the bye-law 16, section 3. Should they attempt to enforce it without being in a position to do so, I have instructed my solicitor to at once commence an action to set aside their decision, and to claim damages."

I may here add that an action, arising from spiteful and impracticable conduct on the part of a client, cannot be brought within the rules of any corporate body. I therefore hold that the decision arrived at by the Council is illegal, and after I have proved this to be the case I shall indict the president and members of the Council for libel.

As for the remainder of Sir G. Gilbert Scott's address I may, without any chance of being accused of fulsomeness or sycophancy, remark that it is difficult to state whether its effect upon the public mind will not be as damaging to the dignity of the Institute as Mr. William Burges's proposed Rococo-decoration of St. Paul's Cathedral would, if carried out, be ruinous to the internal effect of that grand edifice.

If instead of discussing how it is possible to expend a million of money in destroying the solemnity of that noble work, the Council would turn their attention as to how a direct approach from the Embankment could best be obtained, the public would at least gain something by their efforts, and one of our finest buildings would be rescued from its grave of bricks and mortar, in which, sad to say, it is at present entombed.

E. WELBY PUGIN.

#### THE BRIGHTON AQUARIUM.

NEW CLOCK-TOWER, AND OTHER IMPROVEMENTS.

THE *Brighton Daily News* gives a lengthened account of the improvements now being carried out in the "Queen of Watering Places." The tower has been designed by Mr. E. Birch, of London, and its erection contracted for by Messrs. Laidlow and Sons, Glasgow. The material, iron, of which it is built, was cast and prepared in Glasgow, transmitted to Brighton, and there fitted up by workmen in the employ of the contractors. The height of the tower is about 35 ft. The base consists of an archway, supported on double pillars. Above is a clock with four dials, supplied by Mr. E. Boxell, and surmounting this is a turret of proportionate dimensions. The space between the archway and the clock is adorned by four bronze statues from the firm of Messrs. Barbezat and Co., of Paris. These figures represent the four seasons of the year. Spring is symbolized by a female figure clad in drapery, and looking towards the east; summer, by a male figure, bearing a reaping hook in the right hand, having a sheaf of corn behind, and facing the south; autumn, by a male figure, bearing a pruning hook and grapes, and turning towards the west; and winter, by a female figure, closely wrapped up from head to foot, extending one hand over a flame ascending from an urn-shaped vessel, and fronting the north. On the north and south sides of the tower are the two ticket offices, on either side of which



are two turnstiles, one by which to obtain admission, and the other exit. The ground from the entrance to the top of the flight of steps leading down to the building will be covered with tessellated pavement in Minton's style, and the footway in front of the tower will be laid with asphalt. A knowledge of the foundation of this massive portico may not be uninteresting. It consists of solid concrete, from thirty to forty feet in depth, and extending from the northmost to the southmost turnstile, and from the gate to the descending steps. All the work, with the exception of fitting up the iron frame, which has thus been entailed—the laying of the foundation, the joinery, the glazing, the gasfitting, &c.,—has been executed by workmen in the employ of the Aquarium Company, and the result of their operations does them credit. One of the most important branches of the work, however, remains yet to be effected, namely, the enhancement of the attractiveness of the tower by the painter and the gilder. The tower and adjuncts will be painted bronze and picked out with gold. This finishing touch, including some ornamental work, will be given in a short time. As it stands at the present moment, the tower has a squat appearance, but this undignified mien will be dispelled by raising each of the statues previously mentioned about eighteen inches, and so to some extent filling up the space which exists between the top of the archway and the dials of the clock. The increased altitude of the statues will also enable them to be seen to better advantage. Passing to the other end of the building, a neat little garden hut is seen within the fernery, placed there for the accommodation of artistes. It is built of yew and pine in the Swiss style, and is quite in keeping with its picturesque surroundings. The interior is tastefully adorned with Swiss furniture and Brussels carpet.

Perhaps our Kingstown and Blackrock improvers will take a lesson from the above, and turn it to advantage in the carrying out of their projected improvements in their respective townships.

### THE ROYAL IRISH ACADEMY.

THE opening meeting of the session 1874-5 was held on Monday evening last, at the Academy House, Dawson-street.

WILLIAM STOKES, Esq., M.D., F.R.S.,  
President, in the chair.

Dr. E. Perceval Wright, one of the honorary secretaries, read the minutes of last meeting.

Samuel Ferguson, Esq., LL.D., V.P., read a paper "On an Ogham-inscribed Stone at Monataggart, in the County of Cork." The author of the paper, applying to this text (which had been considered undecipherable) the same method of translation adopted by the Bishop of Limerick in the case of the camp inscription, read it, "*Fequreq maqoi glunlegget*," identifying "*Fequreq*" with the name "*Feadera*," as written by Adamnan, and assigning the meaning of "the kneeler" to "*glun egget*," which he took to be a name in religion; and expressed his belief that the monument was Christian. Dr. Ferguson, in continuation, read a letter from the Bishop of Limerick, stating that this text indicated in a remarkable manner that Ogham inscriptions should be read upwards, and from right to left. In ancient times (the letter stated) four classes of penitents fell under the censure of the Church for notorious crimes. One class were called "weepers," and used to be in the porches of churches, begging the prayers of all who entered. Another, called "hearers," were allowed to stand at the reading of the Scriptures and at sermons, but were forbidden participation in prayer and communion. A third class, called "kneelers," knelt in the nave and joined in the prayers; and a fourth class, called "bystanders," were admitted to stand amongst the faithful, but were not allowed to partake of the eucharist. Bishop Graves concurred in Dr. Ferguson's reading, and identified the name "Glen-

legget" as the equivalent of the class of penitents known as "kneelers." The stone was in a sort of crypt, covering a space in which was found burnt charcoal, which seemed to indicate cremation. Dr. Ferguson also read a letter from Mr. Rhys, concurring in his reading of the inscription.

Dr. Ingram, F.T.C., observed that the energy and perseverance with which Dr. Ferguson examined Ogham inscriptions for himself, without taking anything at second-hand, was admirable. He trusted that they would ere long have from Dr. Ferguson a full account of all the Irish, Scotch, and Welsh inscriptions of this kind.

Dr. E. Perceval Wright read a letter on the same inscription, from Mr. Richard Rolt Brash, stating the belief of the writer that Dr. Ferguson's proposed reading was the right one.

Mr. H. W. Mackintosh read a paper on "The Muscular Anatomy of *Cholepus Dactylus*."

Dr. Macalister read a paper on "Two new species of *Pentestoma*, and on the occurrence of a *Lachrymojugal Suture* in Man and *Quadrumanus*."

Dr. Wright announced the following donations to the museum:—Arrow-heads and javelin-heads of flint, from the county of Carlow, presented by W. S. Keogh, Esq.; stone inkstand, with date 1684, presented by H. C. White, Esq., R.D.S.; several bronze celts, dagger blade, and chisel of bronze, two disk brooches, cruciform object, rings, boot-shaped object, harp-pin, all of bronze, smoking pipe and medal of brass, presented by Miss Saunderson of Holles-street; and penannular brooch of bronze, found near Drogheda, in May, 1874, presented by the Rev. J. Reid, of St. Mary's College, Dundalk.

About 190 donations to the Academy's library were announced, amongst which were the following:—From Lord Enniskillen—The Fourth Report of the Royal Commission on Historical Manuscripts, Parts I. and II. From Lord Dunally and the Hon. Henry O'Callaghan Prettie—Two Portuguese Manuscripts, composed in 1590. From the Imperial Commission of Archaeology of St. Petersburg—The *Comptes Rendus* for 1870 and 1874, with an atlas. From Dr. Alvaro Rodrigues de Azevedo—Two volumes, entitled, "*As Suadades da Terra pelo Doutor Gaspar Fructuoso*." From his Highness the Maharajah of Travancore—Observations of Magnetic Declination made at Trevandrum and Agastia Malley. From Humphrey Lloyd, D.D., Provost of Trinity College—A Treatise on Magnetism. From W. Chappell, Esq., F.S.A.—A History of Music. Vol. I.

Thanks were voted to the several donors.

The Academy adjourned to the 30th inst., when the stated meeting, fixed by charter for St. Andrew's Day, will be held, at which it is understood that Dr. Stokes, President of the Academy, will deliver his inaugural address.

### THE MEDICAL PROFESSION AND THE IRISH HEALTH ACT.

IN the introductory lecture to the session of 1874-5, at the Royal College of Surgeons, Dr. J. E. Reynolds, Professor of Chemistry, made some wise and judicious remarks. For the most part we subscribe to his opinions. He is, however, not quite correct in stating that the medical profession have for years been keenly alive to the importance of preventive medicine over curative. It is only quite of late, with the exception of a very few names, that the medical profession have begun to fall in with the movement inaugurated by social and sanitary reformers. The pioneers of sanitary science have been outside the profession, and belonged rather to the architectural and engineering school than the medical. Of late, however, some honest and sagacious medical men, to their credit, as also to their pecuniary loss perhaps, have thrown aside all selfish considerations, and have bodily gone in for prevention before cure. All honour to them, and time will

show they have acted nobly and wisely. We append a summary of Dr. Reynolds's lecture:—

He opened his address by paying a tribute to the memory of the late Dr. Arthur Jacob, who was thrice president of the College. His name would long live in these halls, and in the memories of all who had the privilege of calling him "master." Of his great intellectual activity, of his intense earnestness, and of his services to science, it would ill become him to speak, especially in the presence of one who had given to the world an admirable biographic sketch of Jacob's life—Professor Macnamara. In the course of his address, Dr. Reynolds said they were, no doubt, all aware that during the present month a new Act of Parliament had come into operation in this country, which was likely to exercise a most important influence upon the future relations of the medical profession and the public. Up to the present time the dispensary medical officers in Ireland had been, at least officially, the representatives of curative medicine only. The new Public Health Act had essentially charged them with the application of the principles of preventive medicine in addition. He heartily wished it could have secured to them larger remuneration for their added duties than they seemed likely to receive. His address to them that day should almost of necessity take its colour from the important act of the legislature to which he had referred. He did not desire to weary them with criticism of its provisions, or of the manner in which they were likely to be put in force. The Act was admittedly open to criticism, but the reasonable and prudent course seemed to him to be to await experience in the application of its most useful enactments under the judicious supervision of the Local Government Board. When the defects in its working were fully and fairly ascertained, he thought they might look with confidence for the remedy to the distinguished statesman who had charge of the measure in its passage through the Legislature. He understood that a member of the profession, who was at the same time a member of the Legislature, would in another place that week, give a full and comprehensive criticism of this important measure. They were more nearly concerned in ascertaining the extent of the influence the new Public Health Act for Ireland was likely to exercise on medical education in this country. He was well aware there was a wide-spread impression that this influence would be very great; but after careful consideration of the matter, he thought they might safely conclude that the actual effect would be comparatively slight. The substantial result would probably be to exalt the importance of certain departments of study which had been long taught in their schools. It should be remembered, to the credit of the profession, that medical men had for years been keenly alive to the importance of preventive medicine as a department of the general sciences, though it is only of late years that the public had taken even a moderate share of interest in a matter which most nearly concerned them. When they excluded the legal and engineering questions likely to arise under the new Act, and which should be dealt with by competent lawyers and engineers, he thought it would be found that no really new study need be introduced in order to fit a man for the performance of the duties of a medical officer of health. But he had already said that the importance of certain departments of the professional course would be materially increased; and what these departments chiefly were they would easily perceive, if they considered for a moment what were the more important objects of preventive medicine. In the words of one whose illustrious name is the highest guarantee for the statement, "preventive medicine has," says Dr. Stokes, "amongst its chief objects, on the one hand, the removal of the supposed cause of disease, whether affecting individuals or giving rise to epidemics or epidemics; and on the other, the employment of those measures which are to promote the physical well-being of the community." But it was clear that the causes of disease could not be removed if they were not known, nor could the conditions of maximum health be secured to the community if the profession were ignorant of the relative importance of the great factors in the physical well-being of man. Hence the study of etiology, or causes of diseases based on a large and sound knowledge of chemistry, physiology, and pathology, and aided by the information the statistician can afford, must assume a position of much greater importance than heretofore in the professional curriculum—he meant, of course, in the eyes of students. In the remarks he had hitherto made, it had been almost assumed that the causes of disease were known. Now, though this was, perhaps, true of many, it was very far from being true of the great class of epidemic diseases to which scarlatina, small-pox, yellow fever, typhus, and typhoid



fever belong, though a certain class of sanitarians, in their extreme dogmatism, would lead them to suppose the opposite. The spread of these epidemic diseases was undoubtedly in great part due to contagion, but they were ignorant of the nature of the virus communicated by the sick person and of the precise origin of that emanation. Here there was a great field for investigation. Let them hope that some of those whom he had the pleasure to address might in the future aid materially in its cultivation. Dr. Reynolds then proceeded to speak of the theories which had been proposed to account for the fact of contagion, and of the properties of benzoic and ozone acids as disinfectants. Benzoic acid was superior even to carbolic acid and its homologues, and was free from their unpleasant smell and from other disadvantages that interfered with their convenient use. He was, therefore, anxious to see this acid more extensively employed as a disinfectant. Dr. Reynolds illustrated this portion of his address by several very successful experiments. In conclusion, he impressed upon the students the necessity for earnest and thorough study. Let them be satisfied with nothing short of a sound knowledge of the work in which they were engaged.

### SANITARY AND OTHER NOTES.

In the Corporation a motion was moved and carried that the Port and Docks Board be requested not to take down the temporary wooden bridge (erected during the re-building of Essex Bridge) until the improvement of Carlisle Bridge is carried out. A letter was received from the secretary of the Local Government Board, complaining of the bad drainage of the district in the vicinity of Island Bridge Barracks. In a prosecution instituted against a person having the cellar of a house in Great Britain-street in a state injurious to the public health, and unfit for human habitation, the counsel for the defendant took exception to the proceedings being brought under the Sanitary Act, inasmuch as the provisions of that Act relating to cellars did not apply to any place where such dwellings were regulated by another Act of Parliament. In Dublin the cellars were regulated by the Dublin Improvement Acts, therefore all the proceedings by the Corporation against the defendant were void *ab initio*. After some discussion, Mr. O'Donell, at the request of the sanitary authorities, further adjourned the hearing of the case for a week, with the view of giving them an opportunity of having the point raised argued by counsel on their behalf.

At a meeting of the Clontarf Urban Sanitary Authority it was proposed and carried—"That the Clontarf Commissioners, having read and considered the provisions of the Public Health (Ireland) Act, 1874, and having also had the benefit of Captain Robinson's opinion on several questions connected with it which were submitted to him, are of opinion that the above Act will, for all practical purposes, be a dead letter, unless and until the provisions of the several Acts set out in the circular orders of the Local Government Board (pp. 71-75) be embodied in one Act, which, in our opinion, should be obtained, and should give a simple and easy remedy for all nuisances certified by the officer of that district; and that any such Act should definitely specify who shall be considered as the owner to be proceeded against, having regard to the many different interests in the same premises; and that a copy of this resolution be sent to the Local Government Board, in the hope that they may take action towards obtaining such an Act."

The Local Government Board have addressed a mild remonstrance to the guardians of the Rathdrum Union anent the low rate of remuneration they have assigned to their sanitary officers. The letter is but a sample of what the Board have had to address to other quarters. The salaries settled by the guardians were £10 each for the executive sanitary officers, and for the sanitary officers, £5. The Local Government Board request that the guardians will be good enough to take the subject of the salaries for these officers again into their consideration, the rate of remuneration proposed to be assigned to them being, in the opinion of the Local Government Board, inadequate. As we predicted weeks ago, there will be no end of similar correspondence and wrangling over the head of medical and other salaries, and the public health will suffer in the meantime.

ABBEYLEIX.—The dispensary medical officer here also complains of inadequate salary, and relies upon the Local Government Board to see that a fair salary is secured for him before he resumes his duties. The sanitary inspector reports as follows: I found ten cases of nuisances, which I reported to Dr. Stoney on the 19th October. I visited the

electoral divisions of Cuffshoro', Donore, and the village of Castletown. I found fourteen cases of nuisance, which I reported to Dr. Hanrahan, who took the notices, but he stated he would not act until his salary is fixed. Again, on the 26th of October I examined the electoral division of Kilmaseer. I found five cases, which I reported to Dr. Stoney; and again, on 3rd of November, I visited Clish division, where I found nine cases, which I reported. The second report runs thus:—I beg to report that I inspected the town of Ballyroan and the adjoining townlands of Newtown and Ballyeagle, and found nuisances on fourteen premises, such as filthy yards and cesspools, and pigs in dwelling-houses. I notified to Dr. O'Kelly on the 31st October of eleven cases which I found it necessary to call his attention to; and also I notified to Dr. Swan of one cesspool and one open sewer in the Abbeyleix dispensary district. And also, on Saturday last, in Abbeyleix market, a man named Thomas Reilly had exposed for sale a quantity of unsound herrings, which I had destroyed, and Reilly summoned to the next petty sessions of Abbeyleix. All these cases of nuisances, we suppose, will remain unattended to in consequence of the wrangle over salaries. If attended to, it can only be half-hearted work.

ATHY.—A lengthened report was read at the meeting of guardians, complaining of the defective sewerage in various parts of the town, and that the pumps were out of repair. The sanitary officers also reported there had been three cases of fever in the constabulary barracks; and that he had caused some fish that was unfit for human food to be destroyed. Dr. Ferris, in a letter to the clerk of the union, traverses some of the statements contained in the report, and denies the officer's right to do certain things which he has done.

BELFAST.—It appears that the sewage of the Convalescent Hospital, situated at the Throne, Antrim-road, is permitted to flow into the stream of water that supplies the village of Greencastle and Upper Whitelouse. There have been recently twenty-three cases of typhoid fever in the neighbourhood—one case proving fatal.

CASTLEBLAYNEY.—At a meeting of the guardians here a deal of discussion took place relative to the duties imposed by the new Sanitary Act. Mr. Gray said it was one of the greatest humbugs of an act of parliament that ever passed the house. It was not wanted in country places at all; of very little use to country towns; and, on the whole, "an imposition" on the ratepayers. The consulting officer's salary was fixed at £10 per annum. The dispensary medical officers were allowed £10 each per annum. The clerk was elected executive sanitary officer at £10 per annum. One of the relieving officers and a rate collector were appointed sub-sanitary officers at a salary of £8 15s. each.

CASTLECOMER.—At the Union Board, Mr. Mahony, the executive sanitary officer, read reports from Dr. Sterling, sanitary officer. Several of the cases were very bad, and shew a frightful state of matters. Here are a couple of cases which may be taken as a sample:—Laurence Foley's house, Donaguile, in a very filthy state. Was informed ten persons sleep in it, which from its size, shows there is great overcrowding, and little or no ventilation. Recommends this house to be thoroughly limewashed, properly ventilated, and that an addition be built to prevent overcrowding; that an additional window be put in to light the house properly. Giltinan's house, Kilkenny-street, in a very filthy state; no chimney; bad roof; donkey kept in the house with the people. Recommends this house to be limewashed, roof repaired, and if that cannot be done a new one is required, with a suitable chimney to carry away the sulphurous atmosphere which they must breathe at present; a stable to be built for donkey (it being their principal means of support); they have not the means to do so themselves. Martin Phelan's room, Kilkenny-street, nine people occupy this apartment; this is the worst case of overcrowding I have yet seen, which fully accounts for one of the number suffering from fever. I was informed that they have often to leave their beds at night, owing to the dilapidated state of the roof. Recommends this room to be limewashed, together with the whole house; that larger room be provided to prevent overcrowding, the roof to be repaired at once. No time ought to be lost in seeing after this family, as fever may break out amongst them, which might rapidly spread in this thickly populated street. In several houses the donkey, jenny, and fowl, are housed with the people, and that, too, in their only sleeping apartment. In commenting on the state of this district, the *Kilkenny Moderator* remarks that "ninety-seven sanitary reports up to this came before the sanitary authority of Castlecomer. The prophecy of the Sanitary Act becoming a dead letter

is not likely to be realised, if those charged with its enforcement thus evince the will and the energy to carry it out, as it should be, for the public benefit."

DROGHEDA.—At a quarterly meeting of the Corporation a report was adopted, in which it was recommended that, having regard to the fact of the salaries of the officers before mentioned having been recently increased by the poor-law guardians, and which increase was granted immediately previous to the passing of the new Sanitary Act; and further, that the poor-law guardians, at their meeting held on the 22nd inst., declined to further augment the salaries of said officers; we would most respectfully suggest that the council do not resolve any additional increase to the salaries of said dispensary officers. The following extract from a letter of the Local Government Board may be read in connection with the above:—"It will be borne in mind that by the Act of Parliament it was provided that the local sanitary authorities should in the first instance determine the salaries, but that the power of finally adjusting them resides in the Local Government Board, subject to approval by the Lords Commissioners of the Treasury. The Local Government Board are prepared to perform their part of this duty with a full sense of their responsibility in this matter, and under the impression that, inasmuch as the Act of Parliament has imposed on dispensary medical officers additional statutory duties, it is the business of the Local Government Board to see that proper remuneration is provided for those additional duties."

KILKENNY.—At a meeting of the Town Council, the subject of doctors' salaries under the Public Health Act, led to much wrangling. Dr. James was voted a salary of £20 as consulting sanitary officer, and Mr. Dillon, as executive sanitary officer, was voted the same sum. Mr. Redmonds the inspector, who receives £75 and a house, was voted an additional salary of £10. In the Kilkenny Union, Mr. Murphy, the relieving officer, reported certain nuisances in the townland of Newpark, dangerous to the health of the locality. Mr. Carroll moved that "the Celtic cross erected by the contractor who enclosed the Kellymount graveyard, be paid for, inasmuch as, on a requisition signed by heavy ratepayers of the Electoral Division to which the expense is chargeable, the Board of Guardians has ordered payment, if sanctioned by the Local Government Board, which has been obtained." At a subsequent meeting of the guardians, Mr. Shortall said the guardians were of a different opinion from the Local Government Board. They had an absolute right to their own opinion. It was wrong to increase taxation by increasing salaries, as in all probability the act would very soon become a dead letter, and the Queen's Bench would not coerce them to pay the salaries. The medical officers had enough of pay already; they had nearly £204 a year each, and, if let alone they would be quite satisfied. Mr. O'Donnell said the Board of Guardians were quite satisfied with respect to the salaries already allowed. It seemed to be understood that the answer to be given the Local Government Board was to be to this effect.

LURGAN.—At a meeting of the town commissioners a letter was read from the Local Government Board, directing them to name the salary to be allowed to Dr. Russell for his extra duties in the town as sanitary officer, under the board. The chairman suggested £20. It was decided that £10 should be allowed.

MARYBOROUGH.—Operations under the new Public Health Act are being carried out here. A report relative to the condition of a number of houses in the centre of the town, with little or no back premises, and whose general sanitary conditions are far from being either healthy or inviting, having been made to Dr. Symes, sanitary inspector of the district, he at once took the matter in hands, and men are at work improving their condition.

MOUNTMELLOCK.—The medical officers and sub-sanitary officers here ask for more salary, and complain that the sums voted are entirely inadequate. Their case is under consideration.

NAAS.—At a meeting of the guardians here, a copy of a letter was read which was addressed to the town clerk of Newbridge. It went on to say the duty of clearing the streets is not, in the opinion of the Local Government Board, transferred to the Board of Guardians, but remains in the hands of the commissioners. Attention is also directed to the circular of September last, relative to the provisions of the act which constitutes the board of guardians the sanitary authority in towns having a population under 6,000. The chairman said that on riding over the Curragh a few days ago, he was asked by Brigade-Major Schwabbe, if he applied to the board of guardians would they appoint the provost sergeant sanitary officer at a nominal salary of 1s.



a-year. Mr. Cooke Trench—We will do it at once. Chairman—There are "tonters" out from some parties who sell milk, and when they see the sanitary officer, Mr. Clinton, coming, they spill the milk. The board agreed to appoint the provost-sergeant as sanitary officer. The relieving officers were directed to make a return of all the graveyards in their districts that were not enclosed.

**TIPPERARY.**—At a meeting of the County Tipperary Medical Protective Association the following resolution was passed:—"That, considering the highly important and onerous duties which now devolve on us as sanitary officers, we cannot express in too strong language our feelings of dissatisfaction at the wretchedly inadequate salaries offered by the various sanitary boards through the country." A resolution expressing satisfaction at the communication from the Local Government Board to the hon. sec. of the Irish Association, recognising the justice of the medical gentlemen's claims, was also passed. While the meeting was being held a telegram was received from the Royal College of Surgeons, Dublin, intimating that it had been resolved on to call a general meeting of the faculty, to meet in Dublin, to remonstrate against the unsatisfactory remuneration allowed the doctors under the Sanitary Act.

### SOCIETIES' MEETINGS.

*Royal Institute of the Architects of Ireland.*—The opening meeting of the session 1874-5 will be on Thursday evening next. The report of council and statement of accounts will be submitted, and the new council and officers balloted for.

*Architectural Association of Ireland.*—The opening meeting of session will be held on Thursday evening, 26th inst., in the Ancient Concert Rooms, when the President will deliver his address. The syllabus for the session has just been issued.

*The Royal Irish Academy.*—The second meeting of the session will be on Monday evening, 30th inst. Professor Stokes, President, will read the inaugural address.

### L A W .

#### ARCHITECTURAL PARTNERSHIPS—IMPORTANT CASE.

*William H. Lynn v. Sir Charles Lanyon and John Lanyon.*—In this matter the bill was filed by plaintiff, who, prior to the year 1863, carried on business in Belfast in partnership with defendants as architects, under the style and title of Lanyon, Lynn and Lanyon. The prayer was for an account of the partnership transactions from the 1st of January, 1868, and that the co-partnership might be wound up under the direction of the court. There was also a prayer that it might be declared that all professional profit from all work performed by the firm known as Lanyon, Lynn and Lanyon from January, 1868, to July, 1873, should be declared partnership assets. Important points arising in the case are as to how far, on a dissolution of the partners, they are entitled to share in the profits of unfinished work which, by agreement, was placed under the control of one of the partners. On behalf of plaintiff it was contended that all the partners were entitled to participate equally in the profits of unfinished work. The defendants' contention was that the firm divided all the profits up to a certain point, and that the person who was appointed to carry on the work is entitled to the profits. His honor, in giving judgment, said he regretted the recrimination which had taken place between the parties on the pleadings, and there was no sufficient evidence to warrant the statement so made. In 1855 Sir Charles Lanyon appeared to have taken Mr. Lynn, who had been his apprentice, into partnership, and that partnership continued up to 1863, when Mr. John Lanyon, son of Sir Charles, joined the partnership, and articles were then drawn up regulating the new partnership. In 1868 that partnership expired and a new one was entered into, which was now dissolved, and the quarrels that had taken place were in consequence of the loose manner in which the partnership

articles of 1863 had been drawn up—no provision having been made as to the way in which works in progress at the time of any dissolution should be dealt with. In 1868 the parties had not even taken the trouble of having new articles drawn up, but such partnership was carried on on the basis of the articles of 1863, as altered in pencil, subject to the qualification that the added memorandum was to be considered as part of the articles, and six months' notice of dissolution, expiring in January or July in any year, was substituted for the twelve months' notice required by the articles of 1863. The Lanyons, believing they had a right to dissolve the partnership at any time, served notice of dissolution on Mr. Lynn in November, 1871, but that gentleman, requiring six months' notice to be given to him, another notice was given to him in December, 1871, for the dissolution of the partnership in July, 1872; and when the dissolution took place each of the parties took different views of their rights as regards the works then in progress, Mr. Lynn contending that all such works should be brought into the account, while Sir Charles Lanyon thought the value of such works up to the date of the dissolution was all that should be accounted for. It appeared that in June, 1872, a circular was sent to the customers informing them of the intended dissolution, and asking them to choose whether Sir Charles Lanyon or Mr. Lynn should be the person to act for the future. His Honor then went into the facts at considerable length, and observed that he would preface his decree by stating that the partnership which was dissolved on 1st July, 1872, had been carried on since January, 1863, under the articles of 1863, as altered in pencil in the document furnished, subject to the clause No. 4 in the added memorandum. And the Court being of opinion that satisfactorily to adjust such accounts further inquiries were necessary, an inquiry should be directed as to the present state of the works in progress at the time of the dissolution, and by whom the customers wished to have same carried on, and under what terms and circumstances; also an inquiry whether the circulars sent out in June, 1872, to the customers were sent to the Ulster Hotel Company and to the Northern Counties Railway Company with the sanction of Mr. Lynn. The premises in which the business was carried on in Howard-street were partnership assets, and should be sold at such time and by such person, and under such conditions of sale as the Judge in Chamber should direct; and an inquiry should be made as to whom the furniture, &c., in the house belonged. As to the drawings, plans, designs, &c., with the assent of the counsel for both parties, he would suspend making any order in reference to such for the present, and would reserve the question of costs. An inquiry would also be directed whether any works were in progress at the time of the dissolution other than these mentioned in schedules 2 and 3; and if so, whether they had subsequently been carried on to a further stage, and under what circumstances. He implored both parties to pause, and consider carefully what they were doing, and what they would have to undergo under the inquiries directed, and whether some settlement could not be arrived at. Messrs. W. D. Andrews, Q.C.; Porter, Q.C.; and Twigg, were for the plaintiff. Solicitor—Mr. Cassidy. Messrs. Walsh, Q.C.; Law, Q.C.; May, Q.C.; and Bruce for the defendant. Solicitor—Mr. Torrens.

#### BELFAST QUARTER SESSIONS.

*Frederick H. Smith, v. Frederick Bronneau.*—Plaintiff is an architect, and defendant a dancing-master, and the action was brought to recover £17 10s. for work and labour. For plaintiff it was alleged that defendant engaged him to prepare plans for a dancing academy. Plaintiff accordingly prepared the requisite plans, and gave them to Mr. Bronneau. The building was subsequently proceeded with, and almost identical in detail with the plans he furnished. Mr. Banks,

architect, gave evidence corroborative of this. Defendant swore that Mr. Smith called upon him, and asked him if he wanted a house. Witness replied that he did. Subsequently Mr. Smith gave him plans for his approval, and he took them to Mr. Fisher, Arthur-street, and afterwards returned them to Mr. Smith. These were the only plans he ever received from Mr. Smith. Plans were afterwards prepared by Mr. William Hastings, architect, for him, and on these plans the building was now being constructed, at an estimated cost of £3,000. Mr. Smith's plans were not used, to his knowledge, in any way for the purposes of the building. Dismissed on the merits.

### BOOKS RECEIVED.

*The Draughtman's Handbook of Plan and Map Drawing, including Instructions for the Preparation of Engineering, Architectural, and Mechanical Drawings. With numerous Illustrations and Coloured Examples.* By George G. André, C.E., M.S.E. London: E. and F. N. Spon, Charing Cross.

AN exceedingly useful book, and although principally intended for the use of surveyors and engineers, it will be found a valuable addition to the architect's office. The author has devoted a large portion of his text to field maps and plans, and his instructions with regard to the preparation of them proves he has devoted considerable study thereto. Architectural and mechanical drawing is also largely treated of, and copious instructions are given for colouring. Numerous illustrations accompany the book, executed in a style of art which must commend itself to all who are in connection with drawing either as surveyors, engineers, or architects.

*Eason's Almanac and Handbook for Ireland for 1875.* Dublin: W. H. Smith and Son.

THIS is the second yearly issue of this useful and well-compiled book of reference. It contains over two hundred pages of closely-printed matter. We are presented with "A Short Sketch of Ireland for Tourists," statistics of "Drainage and Reclamation in Ireland," together with the usual information afforded in our best almanacs. In fact this miniature "Thom," brought out as it is at a low price, should command a large sale. We are glad to find that many of the errors which appeared in the first issue have been corrected.

### CHRIST CHURCH, STRABANE.

THE foundation stone of a new parish church at Strabane will be laid on Tuesday next by her Grace the Duchess of Abercorn. The site and a handsome donation have been presented by the Bishop of Derry. The building will be in the Early English Gothic style, and will be erected from designs by Mr. John Kennedy. The cost will be about £4,500.

### HOME AND FOREIGN NOTES.

**SEWAGE IRRIGATION.**—The system of sewage irrigation is about to be adopted by the municipality of Paris. By a plan agreed to at the last meeting of the City Council, the sewage of the French capital, which was formerly emptied into the Seine, is to be diverted to the Plain of Gennevilliers, a district which was the scene of some hard fighting previous to the siege of three years ago. The success of the experiment will be watched with eager interest in this country, and particularly in this city, where we are on the eve of trying to solve the sewage problem for ourselves.

**A CENTENARIAN.**—Last week a man named Finnigan died in the Drogheda workhouse at the advanced age of 105 years. He was born in the year 1769, and at one period of his life occupied a very respectable position in this town.



THE DRAINAGE OF THE SHANNON.—We learn that Mr. James Lynam, C.E., will read a paper "On the Proposed Drainage of the Shannon" at the Evening Scientific Meeting of the Royal Dublin Society on Monday. Dr. Cameron will discourse on "Milk."

TENDERS.

For Ballymacarrett Orange Hall, Belfast. Mr. W. Batt, jun., architect:—

|                            |             |
|----------------------------|-------------|
| Stanfield .. .. .          | £1,186 12 0 |
| Johnston .. .. .           | 1,155 0 0   |
| Morrow .. .. .             | 1,075 0 0   |
| Mercer .. .. .             | 1,060 0 0   |
| Colville .. .. .           | 999 0 0     |
| J. and R. Thompson .. .. . | 934 0 0     |
| Hunter .. .. .             | 920 0 0     |
| Mansell .. .. .            | 918 0 0     |

For shops in Church-lane, Belfast. Mr. W. Batt, jun., architect:—

|                               |        |
|-------------------------------|--------|
| Fitzpatrick, Brothers .. .. . | £2,800 |
| J. and R. Thompson .. .. .    | 2,800  |
| John Thompson .. .. .         | 2,565  |
| J. and J. Guiler .. .. .      | 2,475  |
| Carson .. .. .                | 2,460  |
| M'Arthur .. .. .              | 2,372  |
| Corry .. .. .                 | 2,300  |
| Colville .. .. .              | 2,250  |
| Mansell .. .. .               | 2,125  |
| Hunter (accepted) .. .. .     | 2,020  |

For re-building premises in Hercules-street, Belfast. Mr. W. Batt, jun., architect:—

|                             |      |
|-----------------------------|------|
| Park .. .. .                | £498 |
| Hunter .. .. .              | 460  |
| Moore .. .. .               | 452  |
| Mansell .. .. .             | 450  |
| Johnston .. .. .            | 450  |
| Murdock .. .. .             | 447  |
| Colville .. .. .            | 447  |
| M'Arthur (accepted) .. .. . | 420  |

For Reformed Presbyterian Church, Botanic-avenue, Belfast. Mr. W. Batt, jun., architect:—

|                              |        |
|------------------------------|--------|
| Hunter .. .. .               | £4,499 |
| M'Cammond .. .. .            | 4,240  |
| Harvey and M'Langhin .. .. . | 4,050  |
| Corry .. .. .                | 3,862  |
| Martin .. .. .               | 3,700  |
| Mansell .. .. .              | 3,620  |
| Smith .. .. .                | 3,599  |

Amended tenders, omitting at present upper part of tower and spire, gallery, and rear building:—

|                            |        |
|----------------------------|--------|
| Mansell (accepted) .. .. . | £2,718 |
|----------------------------|--------|

For enlargement of chancel of Christ Church, Belfast. Mr. W. Batt, jun., architect:—

|                 |      |
|-----------------|------|
| Rankin .. .. .  | £185 |
| Hunter .. .. .  | 155  |
| Mansell .. .. . | 130  |

For St. Michael's Hospital, Kingstown. Plans prepared by Mr. John L. Robinson, architect and C.E.:—

|                   | Hospital Section of Works |       | Internal Plumbing Works |       | Alterations to Harry-mount |       | Total |       |
|-------------------|---------------------------|-------|-------------------------|-------|----------------------------|-------|-------|-------|
|                   | £                         | s. d. | £                       | s. d. | £                          | s. d. | £     | s. d. |
| Kelly Bros.       | 6287                      | 12 2  | 255                     | 18 4  | 403                        | 9 6   | 6947  | 0 0   |
| J. Dooling        | 5639                      | 7 7   | 214                     | 16 0  | 490                        | 19 6  | 6345  | 3 1   |
| W. Hughes         | 5629                      | 0 0   | 190                     | 0 0   | 462                        | 0 0   | 6288  | 0 0   |
| J. Kelly          | 5300                      | 0 0   | 200                     | 0 0   | 500                        | 0 0   | 6000  | 0 0   |
| G. Murphy         | 5550                      | 0 0   | 190                     | 0 0   | 360                        | 0 0   | 5900  | 0 0   |
| P. Monks          | 5251                      | 2 1   | 195                     | 18 0  | 390                        | 11 6  | 5837  | 11 7  |
| M. Meade*         | 5076                      | 0 0   | 200                     | 0 0   | 410                        | 0 0   | 5686  | 0 0   |
| Stapleton         | 4590                      | 0 0   | 225                     | 0 0   | 405                        | 0 0   | 5220  | 0 0   |
| Carroll and Dixon | 4089                      | 0 0   | —                       | —     | 460                        | 16 3  | 4549  | 16 0  |

\* Accepted.

TO CORRESPONDENTS.

ERRATUM.—In our last issue, in article on "Printing and its Origin," p. 295, col. 2, line 22, for "England" read "English."

SANITARY AUTHORITIES.—Among them are many individuals, both in the urban and rural districts, unfitted for their duties. We have in our experience known several to be the owners of the worst class of house property. Such men have a direct interest in obstructing sanitary operations, and driving competent officers to throw up their appointments.

C.E.—There should exist no antagonism between both professions, for one is the offshoot of the other, and what was once likely to be again; matters seem to be tending in that direction.

AN ARTIZAN.—See "Practical Geometry," by E. Wyndham Tarn, published by Lockwood and Co., London. It is an excellent book, in which the development of various curves is given for their application to useful and ornamental purposes.

SREC.—Mining operations have, no doubt, been carried out on the spot mentioned. The famous "Hill" shows indications in more than one place of mines being worked. The ore is to be had if the capital can be raised.

FORESHORES.—See present and preceding issues.

CITIZEN.—The duty of every honest citizen is apparent after the flood of light that has been let in upon Corporate transactions within the past few days. During the last three or four years we never ceased to direct public attention to the abuses, an I over and over we predicted what the result would be.

T. F. (Over Darwen).—Thanks.

NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

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# The Irish Builder.

VOL. XVI.—No. 359.

Out and About Dublin in 1802.



IN our last issue we furnished some notes concerning spots in the city upwards of seventy years ago, and the suggestions made for their improvement. Although under the short-lived Irish Parliament (1782-1800) several works of public importance were commenced and completed, still efforts in view of the public health were sparse. The drainage and sewerage of the city seem to have been but little attended to, and for many years into the present century several of the streets, from neglect of scavenging duties and the absence of drains needed to carry off the surface water, presented a very miserable condition. Under the rule of the Wide Streets Commissioners a few improve-

ments of importance were carried out, which led in turn to building operations, which greatly improved the streets where they were carried out. The Royal Dublin Society from time to time, by encouraging the preparation of surveys, and observations thereon, as well as other reports in connection with husbandry and the arts, did some useful service.

The extracts we gave from Mr. Hely Dutton's book in our last issue shew the nature of the work suggested in a sanitary direction, and we are bound to add our author's hints were taken advantage of and improved upon years after. Although Mr. Archer's "Statistical Survey of the County of Dublin," and Mr. Dutton's "Observations" thereon, are mostly devoted in view of agricultural interests, yet in both works many useful improvements were foreshadowed—improvements the carrying out of which devolved upon the Corporation of the period, but were not carried out.

We will now pass under review some more matters alluded to in Mr. Dutton's work in addition to those already noticed. Down to our own time, and still, the city and suburban graveyards of Dublin were kept in a disgraceful condition. Speaking on this subject, our author observes:—"Some years since there was an idea afloat of removing all the burying-grounds out of the city, which I hope to see revived again; they are certainly a great nuisance. The inconvenience attending their removal to the suburbs would be very trifling; our ideas are now, I trust, too much enlarged to permit a veneration for old bones to counteract a proposal for the general health of the inhabitants."

Were Mr. Dutton alive to-day, he certainly would go in for cremation. He seems to have

been in advance of his time as a social and sanitary improver. In London intramural burial has been done away years since by a special Act, and several of the old churchyards have been converted into pleasant gardens to walk in, instead of, as formerly, repulsive sights. Cremation is only a matter of time, and we cannot see, either on religious or sentimental grounds, the force or relevancy of the arguments against it. As a sanitary agent, cremation is all-important, and acres and acres devoted to graveyards might be better employed in providing food for our people.

Speaking of our water supply in 1802, Mr. Dutton remarks:—"Few cities, I believe, are better supplied with water than Dublin; and when the Royal Canal Company, from the extension of their line, will be able to grant a supply, there will be a still greater plenty. As the water in the Basin [south side] is in general muddy, and comes clear to the houses, there must be a deposit somewhere, I imagine this might be prevented by *filtering all the city water* through gravel, which could be very easily and cheaply effected. As timber for pipes is every day increasing in price, and the expense of renewing them heavy and inconvenient to the inhabitants, I presume they might be made to last infinitely longer by slightly charring them *both inside and outside*; it is a well-established fact that wood by this practice is incorruptible; if it answers this purpose, an experiment could be easily tried at a trifling expense."

Our author was also of the opinion that the stream that then supplied the city with water might receive a considerable addition by a little attention to mountain streams, which he thought could be easily diverted into its channel. He also thought that it was very probable that, by purchasing mills on the larger streams, any quantity necessary might be had on terms that ought not to weigh a moment with the inhabitants of "an opulent city."

There were no metal mains in Mr. Dutton's day, and the canals on north and south sides of the city had mostly to be depended upon for the supply of potable and drinkable water. There were many pumps on either side of the Liffey, but with few exceptions the water, although drank, was not really drinkable. Some wells also existed in the city and suburbs, and a few of the old public fountains erected in the eighteenth century existed on the north and south sides.

Filtering water for the use of the inhabitants was not resorted to, if thought of, by others than Mr. Dutton. Water companies, however, now nearly all resort to the process of filtration. In the present Vartry supply, the hints of Mr. Dutton seems to have been availed of, for a considerable addition to the stream is gained by mountain streams and tributaries.

In the suburbs as well as in the city, our author's eyes seem to have been well opened to public neglect; crossing places to the footpaths, he states, are generally most shamefully neglected, and persons have to wade ankle deep for some distance through the mud. He instances the case "from Leeson-street to the late Judge Helen's gate, on the Donnybrook-road." Opposite Lord Charlemont's demesne, on the North-strand, that same neglect was stated to exist of badly kept roadway and footpath. Lower Gloucester-street is thus alluded to: "I must express my surprise that the stinking swamp

between Gloucester-street and Aldborough-house has been so long permitted to annoy the neighbourhood of Summer-hill, and the adjoining streets; in warm weather it is sufficient to breed a pestilence, and, if neglected, must annually increase in its baneful effects." This stinking swamp, however, continued to exist down to 1840-2 in its neglected state. The spot was recently alluded to at some length by the writer of "Unknown Dublin" in these pages.

Speaking of Sarah Bridge, Island Bridge, called after the Countess of Westmoreland, the wife of the Lord Lieutenant in whose vicereignty it was erected, our author says:—"Sarah Bridge is at once an ornament and reproach to the country: it appears as if the architect was only anxious to build a superb bridge, which would form a very fine perspective view, without considering the approach to it; instead of either carrying the road on a level or an inclined plane, from Conyngham-road to the bridge, it dips about midway and forms a receptacle of mud and water that renders it almost impassable. Had the entrance to the Phoenix Park been placed opposite this bridge, and the road made to wind gradually to each side, it would have formed one of the most picturesque and bold objects, perhaps, in the country." Notwithstanding the bad approaches to Sarah Bridge—which, subsequently to Mr. Dutton's day, were amended—the bridge, from its lightness, and grace of its proportions, has been long admired. It has been termed by some, we believe, the Irish "Rialto." It consists of a single elliptical arch, 104 ft. in width, and rising to an altitude of 30 ft. above low water.

We have drinking fountains and drinking troughs for dogs and cattle in London, in these days, and they ought to be general in this island. Mr. Dutton seems to have been one of the pioneers on this and other cognate subjects. He says:—"Watering places on roads, for horses and cattle, are very necessary; for want of these, horses are frequently watered near the city in dirty pools; there is no road where they might not be very easily constructed. There could be one erected on Donnybrook-road, opposite Platanus, where a constant stream runs; another could be erected on the Rock-road, near Merriem; another could be amply supplied from St. John's well, near Sarah Bridge. . . . For this purpose stone troughs, raised three feet from the ground, should be erected, by which means the water would be always pure, and the carriage horses could be watered without letting down the leading rein; the overflow might be caught in a receptacle of a foot deep only, which would answer for washing or cooling the feet of horses or cattle." The Metropolitan London cattle troughs are constructed not much unlike the design suggested by Mr. Dutton. They are of wood, however, lined with zinc, and the receptacle underneath affords the thirsty dogs of the street the opportunity of a lap.

Mr. Dutton, speaking of the opening of new roads from the city to the suburbs, says:—"A road continued along the Liffey, from Usher's Island through the Hospital Fields and under Inchicore to Chapelizod, would be exceedingly convenient, as it would be level the whole way." Most of our citizens remember the Military-road, and the entrance gate at the corner of Watling-street, erected by Francis Johnston, the architect. This gate



has been for many years doing service at the Kilmainham entrance to the Royal Hospital. The Great Southern and Western Railway in its construction cut off a portion of the old Hospital Fields—i.e., "Bully's Acre."

A road which existed for some years, starting from the town entrance to the Hospital, and stretching to Island Bridge Barracks, is now being closed up, and in its stead a more convenient one is being formed in continuation of that at Great Southern Terminus. The ascent from Bow Bridge through Irwin-street to the Royal Hospital has always been a deplorable and unfortunate one; but for visitors or vehicles from the city, this disagreeable approach is obviated by the new road alluded to above.

In 1802, and for many years subsequent, the southern suburbs of Rathmines and Rathgar were nearly all fields or nursery gardens. Portobello was the Town's-End-street in that direction. "There is also," said Mr. Dutton, "a road greatly wanting from Rathgar-road to communicate with the new road through the Commons of Crumlin, which runs near Mr. Grange's mill; a lane to the north of Mr. Shaw's demesne points out the direction it should take. This would give a ready communication with the great Naas road."

The Rathmines, Rathgar, and Roundtown roads are in pretty good order in these days, and the modern townships are well intersected by cross-roads. The olden fields and orchards are squares, and the ancient lines of roads are elongated streets.

Of some other City spots and strictly suburban ones we may treat in another paper, in connection with the suggestions towards public improvements made by Mr. Dutton upwards of seventy years ago.

#### NEW EPISCOPAL CHURCH, STRABANE.

WITH this issue we give an illustration of Christ Church, Strabane, County Tyrone, the foundation-stone of which, as we have already announced, was laid by the Duchess of Abercorn on the 17th ult. It is being erected from a design by Mr. John Kennedy, of Londonderry, and was selected in a competition. It will comprise nave, aisles, and transept. The material will be the rubble stone of the locality, with freestone dressings.ittings will be provided for 400, exclusive of the choir. The benches will be of pitch pine, 3 ft. from back to back. The passages will be laid with red and black tiles, and the chancel with encaustic tiles. Mr. James M'Clay, of Strabane, is the contractor for the entire work, including heating and lighting. Cost, £4,200.

The church is intended to be used in place of the old church of St. Comghall, erected two centuries ago, and in memory of the Rev. James Smith, for twenty-six years rector of the parish.

#### THIRD SESSIONAL MEETING OF THE ARCHITECTURAL ASSOCIATION OF IRELAND.

THE session of 1874-5, was opened on Thursday evening last, by a *conversazione* at the Ancient Concert Rooms, Great Brunswick-street. On a range of tables, as well as on the walls, were exhibited some creditable designs by the junior members. The atten-

tion of those present was for upwards of an hour engaged in examining the various articles sent for exhibition by Messrs. Edmondson and Co., Dockrell and Co., Fry and Co., Gregg and Son, and other firms. Samples of the new bituminous tubing, patented by Mr. Fottrell, were also on view.

The association was honoured by the presence of a very numerous attendance, amongst whom we observed:—P. J. Smyth, M.P.; Very Rev. Canon Pope, S. U. Roberts, C.E.; W. J. Fitzpatrick, J.P.; George Wilkinson, Denis Moylan, D.L.; A. Samuels, T.C.D.; Charles Longfield, R. S. Swan, George Booth, Thomas Martin, W. F. Doyle, R.H.A.; J. Wodehouse, R.H.A.; Thomas Drew, R.H.A.; J. E. Rogers, R.H.A.; Dr. Grimshaw, Dr. Wharton, &c., &c.

At nine o'clock precisely the chair was taken by the newly-elected president,

W. M. MITCHELL, ESQ., F.R.I.A.I.

From the annual report read by Mr. J. L. Robinson (hon. sec.), we learn that the general meetings had been, as a rule, well attended. The library had been extensively patronised, but the present stock of books was inadequate. The prizes awarded during the session were—For essay on Irish Architecture, W. Fennell; for Measured Drawings of Bective Abbey, county Meath, John L. Robinson. Prizes were also awarded for best Sketches in the Class of Design, and for best answers in the Class of Construction to Messrs. T. H. Longfield and John L. Robinson, who, on account of their holding office, declined to accept them.

The President on rising to deliver the inaugural address,\* was received with applause. On its conclusion a vote of thanks was proposed by Patrick J. Smyth, Esq., M.P. He briefly surveyed the principal points put forward by the President in his able address. He observed that while at present there were great improvements being carried forward in the architecture of London, it was not too much to hope that the æsthetic wave might touch our shores, and reach as far as Carlisle Bridge. He believed societies like the Architectural Association were potent agents in the work of regeneration which had commenced in this country.

The Very Rev. Canon Pope said he had been commissioned to discharge the honourable duty of seconding the resolution. He did so with great pleasure. The address was stamped with all the qualities which were characteristic of excellence—depth of thought, practical information, cultivated taste, genius of design, and conveyed in the happiest phraseology, with distinct and graceful delivery. In viewing the highly creditable specimens of architectural drawings, which are displayed in your meeting rooms, I have observed that though all the features of the exteriors of the edifices are developed in every variety and gradation of shade, they are all tinted in a general uniformity of tone. This, I consider, is quite in accordance with true architectural taste. The architects of ancient Greece frequently, and Egyptian architects still more frequently, it is true, introduced a variety of colour in the exteriors of their temples, either by employing stones or even pigments of different colours. Though their authority is very weighty, I consider the effect not very happy, and that they thereby detracted from rather than added to the idea of grandeur in architectural structure. True taste seems to me to exclude variety of colouring and brilliancy of colouring in the exteriors of great edifices. Grandeur seems to me associated with sombre colouring and uniformity of colouring. A mighty mountain seems grander and more majestic when toned in brown, or in neutral tint, or in azure, or when veiled in the sombre shades of evening, than when coloured with brilliant verdure, or decorated with flowering shrubs or groves in summer's blossoms. So also the fade of a noble

structure displays more grandeur and sublimity when toned in uniformity of colour and gravity of colour, than when clad in variety of colour and brilliancy of colour. Prettiness loves variety; sublimity, uniformity: the one loves brilliancy, the other gravity. A parterre is pretty when diapered with flowers, tinted in all the glowing dyes of the rainbow, but a stately portico or a towering dome are reduced from the character of sublimity and grandeur to the lowly grade of littleness and frivolity. Architectural structures, scientifically erected, paint themselves. They are tinted in chiaroscuro by nature's pencil in every variety and gradation of shade. The prominences are relieved and the back-grounds recede, and the circular columns display the most beautiful, imperceptible, and harmonious blendings of light and shade. As the luminous orb of the sun revolves, whilst those tones of the building are always of a uniform colour, the shades and aspects of the structure ever display a fascinating variety. Artificial colouring destroys nature's tintings, and being unchangeable, ever presents the building under the same monotonous, unchangeable, immutable aspect. But though sombre colouring, and uniformity of colouring be characteristics of grandeur in the exteriors of noble buildings, the beauty and perspective of the streets formed by such buildings always require to be relieved, and enlivened by some warm bright tints. In the first instance we treat of beauty in architecture, in the second of beauty in pictorial effect. Artistic effect in each is governed by very different principles. The mountain toned in grave uniform colour may be grand, but it does not in itself constitute a picture. To form a feature in a picture, it must be associated with other accessories; with depth, with perspective, with variety of tints, with contrasts, with harmony—in a word, it forms only a single object of the many necessary to constitute what artists understand by composition. In painting, variety of tint is indispensable to harmony of colouring. In music, variety of notes is indispensable to harmony of sound. It is very remarkable that in music one octave note will balance a volume of sound composed of low deep basses. It is equally remarkable how one bright tint in a painting will balance deep masses of the heaviest shades. Artists understand this well. I consider that a permanent bright tint would contribute very much to the picturesque beauty of our streets, and would relieve the sombre drapery of the people, and the heavy masses of the shades of architectural structures in the perspectives of large cities. It occurred to me that this might be well provided for by painting the Post Office pillar boxes in red colour; such bright colour would also contribute much to their utility. The present number would at once appear multiplied; strangers could easily find them without enquiry; they could be seen at a great distance. At present they seem painted in colours ingeniously designed to conceal them. If our Post Office authorities could be induced to paint them in brilliant colours, the utility of the boxes would be much increased, and the bright tints would relieve and balance the shades, harmonize the tones of the perspective, and beautify the picturesque effect of the streets of our cities. I beg to second the resolution.

The motion was adopted with acclamation.

The President returned thanks.

On the motion of Mr. George Wilkinson, seconded by Mr. Thomas Drew, R.H.A., it was resolved to print and circulate the address.

Mr. Drew called attention to the difficulties thrown in the way of all architectural improvements in the city by the want of a Building Act, and expressed a hope that something would be done to remedy this want.

A vote of thanks was passed to the visitors, on the motion of Mr. M'Curdy, seconded by Mr. O'Callaghan, and

The proceedings terminated.

\* To be found on another page.



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A.I.R.

## EIGHTEENTH ARTICLE.

THE subject of our present article is inseparable from that treated in our last, "Overcrowding and Ventilation." Without pure air, or that which is comparatively pure, systems of ventilation afford but little relief. A house enclosed with foul surroundings, with its rooms overcrowded within, is, in short, a pest house, and should not exist anywhere. Not only the safety of the inmates, but the public safety demands that dwellings, so situated, should cease to be used as human habitations, or demolished if their condition cannot be improved. The atmosphere by which we are surrounded, or in other words the air we breathe, is composed of a mixture of two gases, oxygen and nitrogen, in the proportion of 79·02 volumes of nitrogen, and 20·98 of oxygen. Besides these two gases the air contains small quantities of carbonic acid and aqueous vapour, differing according to the weather and the locality. Air, in common with other bodies, has a perceptible weight, it is elastic and compressible, and the higher we ascend the lighter the air becomes. Were the air only composed of oxygen, we would breathe away our bodies too fast, for nitrogen alone would kill us. By the mixture, a proper strength is maintained, necessary for the support of human life. The aqueous vapour, in connection with air, forms about one per cent. of the value of the atmosphere, but it is a variable constituent. Nitrogen, oxygen, and water, make up the great mass of our atmosphere.

Considering the nature of climate, soil, and locality, overcrowded and sparsely populated places, mountain top and valley, it is somehow curious that the relative proportion of the two gases, nitrogen and oxygen, is nearly the same. The ratio seems to be somewhat the same over the earth. Notwithstanding that every fire that burns and animal that breathes is using up the oxygen of the air, in the smoky town of Manchester, and the busy streets of London, there is all but the same proportion of oxygen, according to our latest authorities.

Dr. Angus Smith, in his excellent work on "Air and Rain," furnishes a useful and interesting table of the condition of the air in various places in England, Scotland, and the Continent. On tops of the hills of Scotland, the oxygen percentage by volume (in dried air) is 20·98; in the open parts of London, 20·95; the average composition in the worst parts of London streets, 20·857. Taking the worst portions of the tunnel of the Metropolitan Underground Railway, the average was 20·70. In a small room where there was a petroleum lamp, it was 20·84; after six hours burning of lamp, 20·83; about the backs of houses and closets, 20·70; in the pit of a theatre, at 11.30 p.m., 20·74; in the gallery of ditto, at 10.30 p.m., 20·63. From this table it would appear that a lowering of oxygen only to the extent of 0·3 per cent. took place in badly ventilated places. It is said that the small lowering of the oxygen is far too trifling to be of influence on the animal economy. In mines a far greater depression of the oxygen is exhibited than in the worst ventilated rooms. The worst instance of air in a mine, cited by Dr. Angus Smith, is that in which the oxygen fell to 18·27. It is thought that even in this extreme case the deficiency in oxygen is in itself of no biological importance, but we think more experience and experiments may prove that it is of importance. From the table compiled by Dr. Smith, several of the streets of London shew that the air in them is hardly appreciably richer in carbonic acid than the air in the country. The volume of carbonic acid in 100 volumes of air in Cheapside, was ·0352 and ·0337; in a small court in Lambeth, ·0382; in the New Cut, a crowded place, ·0413; and on the top of the London Monument, ·0398. A list of the close places in London is also given by Dr.

Smith, which shews that the rise in the carbonic acid is slight. In the worst instance the carbonic acid did not rise to a dangerous height.

Commenting upon these statements, or facts, if we may call them such, it is stated in Mr. Ernest Hart's "Manual of Public Health," that "the mere rise in the carbonic acid, from 0·037 to 0·338 volumes, is, in itself, of no consequence whatever; and it is certain that the feeling of closeness is not due to this rise." Are we, therefore, in "great darkness as to the real cause of foulness of atmosphere," as more than one authority asserts? Do not animals, diseased and otherwise, render more foul a confined atmosphere? Do not sickly human beings, pent up in close rooms, foul the atmosphere they breathe to a large extent, if there be no proper inlet of pure air? Do not pigs, poultry, and other animals living under the roof with families, foul the atmosphere or air of the room? Does not the system of waking the dead for days in the one room with the living, foul the air? Does not the burning of lamps and candles for hours, day and night, render impure the air of close rooms? Does not the escape of sewer gas from the drains, or water-closets, permeating a room, foul the air? Do not rotten animal and vegetable substances in a house, or under the windows of a house, contribute to the fouling of the air?

Common sense would say that these and other causes contribute a great deal, yet it is stated that the fouling of a room or place is not in virtue of the abstraction of oxygen and the generation of carbonic acid, but is due to something else which is not yet understood. We believe that both animals and human beings actually poison the atmosphere they breathe, and that lamps and candles throw off carbonic oxide or acetylene and other active poisonous substances. The discharge of carbonic acid is certainly the commencement of fouling of the air. The normal air contains 0·037 per cent. (by volume) of carbonic acid; and, according to Pettenkofer, when the proportion of carbonic acid exceeds 0·100 per cent. (by volume), the air is much defiled—so much so that, if such a state of things exists in a dwelling-room or meeting-place, it should be purified at once by effective systems of ventilation.

The influence of soil upon health deserves to be more particularly noticed than it is. Our fathers, with far less chemical experience or knowledge than we possess, paid some attention to the subject, and, though their deductions may have been erroneous to some extent, they were not very wide of the mark in attributing to certain soils certain injurious influences.

In the last century a writer described atmospheric air as "constantly composed of heterogeneous particles, especially putrid ones from animal, vegetable, and mineral substances, which, being received into the blood by means of the lungs, contribute as much to its corruption as the vital air to its purity. The salutary effects of the common or atmospheric air depend in a greater measure on local circumstances, and on none more than the soil of the country. Calcareous soils, from their qualities of attracting aqueous particles from the air, would, if the body of that element was confined, render it dry; but, from the same quality attracting the watery clouds and vapours floating therein, render it damp and tumid. Argillaceous soils, on the contrary, have a tendency to impregnate the atmosphere with too much essential oil, which, rendering the blood unctuous, produces a poor and watery scurvy by discharging the blood of its aqueous parts. Silicious soils, from their affinity to alkali, have a tendency to impregnate the blood with that salt, which, rendering the blood too thin, destroys its tenacity; and not having a sufficient supply of fixed air, the body becomes emaciated and weak." Further, the same writer was of the opinion that "mixed soils, therefore, like mixed aliment, are the most proper for the support not only of the vegetable but of the animal

creation. A due proportion of calcar, sillex, and argil seems to be productive of the most salubrious air for the support of animal and vegetable life. But as among plants different species require separate soils, so in the animal economy much depends on the constitution of individuals."

The opinion of this writer in the last century is not far behind, if behind at all, with more modern views—in fact, he is still in advance of some of our present authorities. Moist and damp airs we know to be injurious, and in low situations where there is an absence of drainage, the evils of overcrowding and the absence of ventilation increase the danger. The foul and putrid air in ships, mines, and sometimes in jails, proves the absence of proper ventilation, and the impurity is often occasioned, as in the case of vessels, by overcrowding. In one of the authorities already alluded to in our articles it is said, "It may possibly not be uninteresting to make the observation that the captives in the Black Hole at Calcutta did not perish (or even suffer) for lack of oxygen." They certainly suffered from overcrowding, and it is clear that the atmosphere they breathed could not be pure, if we are to accept the historical account of that very black affair that has reached us. Despite of what has been said to the contrary, we hold that it is of importance for the medical officer of health to inform himself by measurements of the oxygen in air, as well as to look to other criteria.

## THE FUTURE OF THE ENGLISH LANGUAGE.

EMPIRES and nations, with their respective dynasties, have come and gone since the beginning of this world's history; and they have existed but so long as an all-wise Providence has permitted. Desolated ruins of once magnificent cities, now the habitats of wild beasts, in numerous instances only attest the sites where centres of dominion and rule have stood; and these isolated mementos are the only remains which proclaim to us their former existence and former rule. Babylon and Nineveh, Memphis and Thebes, are, perhaps, sufficient examples.

Imagination will occasionally repeople these desert wastes, and reproduce to the mind's eye all the refinements, the appliances, and glittering pageantry of their former every-day life. Palaces arise where unequalled splendour and perhaps a barbarous magnificence were together combined, and temples where gorgeous and unholy rites were enacted under the semblance of devotion to an all-ruling Power; yet how small—how infinitesimally small—an influence have the peoples who ruled there produced upon the future of the world, and what has been the destiny of their spoken languages?

Upwards of 2,300 years ago the country of the Pharaohs and the Ptolemys was described by Herodotus as "the land of marvels"; and this was equally true a thousand years before the great historian's time. The colossal remains of enormous sepulchres and temples, which age after age have withstood destruction, exhibit no parallel in the annals of the world, and they are still invested with a charm which conveys to our age a solemn, a mysterious, and perhaps a melancholy interest in the gigantic works of their builders; but this is all—neither Assyria nor Egypt have exercised any influence existing to our time: the cities of the former are only now represented by huge mounds in a howling wilderness; the latter lives on still, but oh! how fallen.

Sometimes we see modern towns reared upon the ruins, or portions of the ruins, of their prototypes, but vastly inferior in point of splendour or acquisitions, with different manners and customs, speaking in some instances altogether differently from their ancestors, in others a barbarous idiom derived from its source.

Rome, in the zenith of her power, was once mistress of the then known world, and is



perhaps the best example of extended rule leaving considerable traces behind; and this she has done in the ruins of her temples and fortresses, remnants of which still exist in several quarters of her former dominions, and also in the names of places perpetuated to our day; yet the language spoken by her citizens now only exists in the records of literature, and it is totally disused by moderns, except in its idioms—the Italian, Spanish, French, and Portuguese—but not known in its original, except in the records of literature and through ecclesiastical and professional preservation.

At a later time, Spain, in its modernised admixture of Celtic and Latin, seemed destined to diffuse her manners, her habits, and her language throughout the world. She was the dominant power of Europe, and her empire extended over a considerable portion of the American continent. Spanish was the only medium through which the traveller could make himself understood over the world; it was the language of commerce, of diplomacy, of courtly circles, and perhaps of the civilisation of that period. It was familiarly known in England during the latter half of the sixteenth and first half of the seventeenth century, as we find by Archbishop Trench's "English: Past and Present," pp. 115, 116:—"The wars in the Low Countries, in which so many of our countrymen served; the probabilities of a royal match with Spain; the fact that Spanish was almost as serviceable at Brussels, at Milan, at Naples, and for a time at Vienna, not to speak of Lima and Mexico, as at Madrid itself, and scarcely less indispensable; the many points of contact, friendly and hostile, of England with Spain for well nigh a century—all this had conducted to a widespread acquaintance with Spanish in England; it was popular at court; Queen Mary and Queen Elizabeth were both excellent Spanish scholars."

Peoples have existed, although not dominant races, who at one period or another have bid fair to extend and perpetuate their language to all time, through the medium of their acquaintance with literature and the arts. Greece, the boasted nation of refinement, the pioneer of European languages, is an example, and she ought to have accomplished this in the days of her freedom; yet modern Greek or Romaic is but a barbarised idiom of its prototype, and it is now impossible it can ever increase beyond the isolated districts which gave it birth.

Reviewing another period, the Celtic in later times seemed likely to Celticise Europe (if we may be permitted to invent a term), for in its different dialects it was the most widely-diffused over the Continent. The Gaedhlic or Scotie\* (i.e., Irish)—which appears to have been its original, or rather the most carefully preserved of its dialects—was the language of literature wherever it was known. In O'Connor's "Dissertations on the History of Ireland," p. 30, we find the following:—"Our Gaedhlic or Scotie hath, we think, the preference in point of purity as well as antiquity to all other Celtic dialects; and as it is evident that the Scots had the use of letters from the time of their settlement in Ireland, there can be no dispute but that their language comes nearest to any of the original patriarchal sources. Their security from foreign invasion, their remoteness from the Continent, their polity and their manners, rendered the study and purity of language a principal part of the education of youth; and the consideration of their care in this particular obliged a great genius to confess that the language of this nation is the most original and unmixed now remaining in any part of Europe."

That Ireland was for ages distinguished for learning and the arts, is well known; also that when North and South Britain were sunk in barbarism, it was the great centre of

Christianity and its concomitant civilisation, not alone for the neighbouring islands, but also Europe. In confirmation of this, we will refer to an example existing at the present day—the Book of Kells,—the history of which has been so often reproduced to us of late. In allusion to its removal from Trinity College, Dublin, a recent number of the *Globe* (London newspaper) gives the following paragraph referring to its restoration to the College Library:—"It is a singular fact that in the darkest of the dark ages a style of art in illumination and ornamentation of manuscripts was brought to perfection in Ireland, which formed the model on which was founded some of the greatest Continental artistic triumphs." How the Irish language fared in perhaps darker pages of its history, is not our province to refer to. The French language was not proscribed either in the British possessions of Canada, nor yet in the Southern States of the American Union; yet how comes it we have neither an Irish nor a French speaking people over that continent? Spanish, perhaps, by right of earliest conquest or settlement, ought to be the language of the southern nations of America; still it is more than probable, after a generation or two, it will have ceased to exist there. German has considerable claim both from early colonization and an immense proportion of emigration in the present day to be the language of the American Continent; yet it is not, and it is possible that Mexico, Central America, Peru, La Plata, and Chili, from their proximity to the United States, will eventually become Anglicised through the influence of the latter. Amongst the dark-skinned races of the tropical plains of Africa, English as yet has made no progress, although its influence is considerable along the entire seaboard line of this continent; and in connexion with this subject it may not be uninteresting to remark that, although some of the earliest seeds of civilisation were planted upon African soil, and that Egypt practised all the refinements of life for ages, it had little influence in humanising the barbarous nations of the interior. What may be in store for the future, we cannot attempt to predict.

The days of England's glories may possibly be numbered, like all the great empires which have preceded her's; but it has remained for her alone to foster a language originally derived from a warlike and barbarous people, which, in the course of ages, has accommodated itself to, and adopted within itself, the spoken and written words of every known nation on the face of the globe, and which must and will perpetuate her manners, her habits, and her name even to the end of all time. In the days of Elizabeth fewer people spoke English than are now inhabitants of London and its adjuncts; yet how comes it at this day it is understood all over the globe? In looking over the pages of the *Athenæum*, in a review of Dilke's "Greater Britain," we find the following adoption of our theory:—

"We have done more than spread ourselves abroad and multiply until we have become 'many nations'; for we have not only grown from three millions of English-speaking people into seventy millions at least, with a rate of growth which will make us a hundred millions in twenty years, three hundred millions in a hundred years, but have drawn into our current a good many alien forces. The language of Shakespeare is spoken by millions of men whose fathers, in Shakespeare's day, spoke Danish, Dutch, French, German, Italian, Erse. These men have been fused into an English mould. Whether they live in America or Australia, they have been induced to adopt a new idiom, a new law, a new habit. How have they been induced to do so? Where have the English of Elizabeth found the secret of such a success?"

We will endeavour to explain it. Now nearly four thousand years ago the first families of emigrants from the land which was the scene of the creation of man set forth across the sea to colonize Europe; they were the descendants of Japhet, the sons of Noah. Now the text of his prophecy runs thus:—"May God enlarge Japhet, and may he dwell in the tents of Sem, and Chanaan be his servant."—Gen. ix. 27. These first emigrants from

Asiatic shores, "every one according to his tongue, and their families in nations," peopled, in the language of Scripture, "islands," Greece, Italy, and Spain, one after another, were thus colonized; thence into the interior of Europe; and from these we derive the founders of the Indo-Germanic, the Teuton, Gaul, and Scot races. Their progress has been, and until a comparatively recent period exclusively, westward. Whatever causes have promoted it, we will not pretend to arrive at; but that all these nations are becoming one, and at present have an amalgamated representation throughout the American Continent, is matter of history for the future. That the English language has struck its roots and permeated into every portion of the soil of America, must be acknowledged. British conquest, whether it may be for "weal or for woe" to the peoples of the conquered, has planted it in the very heart of Asia; commerce has introduced it into China, Japan, and Persia; peaceful colonization has established it in Australia and New Zealand; and another generation will witness it spoken throughout Polynesia.\* What the future of the English language may be, we will leave to others to explain; but it is by no means inconsistent with belief that the time will arrive in this world's history when it shall be the medium of communication throughout the entire globe; and thus, it may be, the prophecy alluding to the descendants of Japhet will have become realised, and the sun of knowledge—whose earliest beams glittered over the "islands" of the Mediterranean; whose mid-day splendour shed a halo of glory over Europe and America—will, when this earth has performed its allotted course, set encompassed by still brighter and more gorgeous rays in the waves of the Pacific. Which of all the languages of the globe will have been most instrumental in the previous diffusion of this glorious light, will not be difficult to determine. Upwards of two centuries ago the poet Daniel seems to have anticipated the answer, in the following lines:—

"And who, in time, knows whither we may vent  
The treasure of our tongue? to what strange shores  
This gain of our best glory shall be sent  
To enrich unknowing nations with our stores?  
What worlds in the great unformed Occident  
May come refined with accents that are ours?  
Or who can tell for what great work in hand  
The greatness of our style is now ordained?"

W. H.

### THE ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.

THE opening meeting of session 1874-5 was held on Thursday evening, the 19th ult.,

Mr. J. H. OWEN, M.A., President,  
in the chair.

There was but a very limited attendance of members.

The following Report of Council was read by the honorary secretary:—

"The session 1873-4 has been uneventful in most respects, and your Council have but little of interest or progress to report; as from the unsettled state of our trades, and the high price of materials consequent on the recent strikes amongst workmen throughout the kingdom, there has been, we regret to say, during the period referred to, but little call for the architect's skill, and therefore but few questions of a professional nature have been before your Council.

On the 6th of January last, a *conversazione* was held in the rooms of the Royal Hibernian Academy. On that occasion the exhibition of drawings and works of decorative manufacture were of an order of merit reflecting

\* The language of the Polynesian islanders—which, according to present appearances, seems likely to be superseded by Anglo-Saxon, partially through English influence, perhaps more generally from American sources—is, according to La Perouse, one of the oldest in the history of the world. From "Voyage de la Perouse autour du Monde," vol. iii, p. 277, we derive his ideas upon this subject nearly as follows:—"These several nations are sprung from Malayan colonies who emigrated there in the earliest ages, and perhaps even the Chinese and Egyptians are modern as compared with these interesting peoples. He may be correct, as we can find no authority to refer to in contradiction.

\* The ancient Irish were for a long period known by the name of Scots, and still are at the present day amongst the Irish-speaking population. The posterity of Eber Scot, a colony of Spaniards, settled in Ireland a thousand years before Christ; in subsequent time, when their numbers increased, many of them emigrated to North Britain, and formed large colonies there: thus Scotland derives its name.

† Sir W. Temple.



much credit on the artists in their various classes. Our former Vice-Patron, the late Viceroy, and his lovely and accomplished consort, the Countess Spencer, were present. They both expressed their gratification, and took a lively interest in the meeting, at which the general attendance numbered some 340 persons; and your Council cannot but feel that were public meetings of this class held from time to time, it would tend to develop our calling and lead the public to a better knowledge of architecture, the duties of an architect, and the legitimate services to be rendered by him to employer and contractor.

We next have to notice the competition for the Catholic Hall, Belfast, the plans for which were voluntarily referred by the committee to your Council, with a request that they would adjudicate the premiums. The award was made after a careful examination of the designs, and a report from a sub-committee; and, having been published in *extenso* in the IRISH BUILDER, the result will be well known to most of our members. This award, however, was ultimately ignored by the committee and the first premium awarded for drawings indifferently executed, and a design, the chief merit of which rested in its apparent cheapness and visible disregard for all outward appearances. The council abstained from any notice of the course taken by this committee, but would be glad if the Institute at large would take the matter under their serious consideration, and record their feelings in the form of a minute on our general proceedings.

During the past few months we have had to mourn the loss of Sir John Benson, who was for years one of our Fellows, and in many ways, since his residence in Cork, showed he took an interest in our proceedings, and when in Dublin he was a good attendant at our meetings.

Your accounts for the past session have been duly audited, and show a small balance in the treasurer's hands, and the funds may be looked upon as in a satisfactory condition, the arrears due by members being large in comparison with our liabilities.

With this I conclude my official statement for the past session."

The following, referring to the present position of the Institute, was submitted by the hon. sec. :—

I have, however, to state that your "Institute has now attained the thirty-fifth year of its existence, and it is a matter of regret to your out-going Council that it should have hitherto been productive of comparatively so little beyond the benefit to be derived from casual discussion and interchange of opinion at the ordinary meetings." These gloomy words, with date only altered, were spoken at your opening meeting of session twenty-two years ago, and in the main I believe them equally applicable to the present occasion, for though much has been done by this Institute from time to time, there remains but little record of the labours of your members, save in the minute-book, and in the drawings of Irish Antiquities, for which the "Fitzgerald Medals" have at various periods been awarded; and a careful reading of these minutes will convince any inquirer that, in spite of improved educational advantages both within the members and with the outer world, our professional status has declined, instead of growing upward and keeping pace with that onward march of science, civilization, and art, for which the period since our foundation has been especially remarkable.

Further, during our later sessions there has been a difficulty in keeping up—nay, even a falling off in our ranks, which I feel to be in a great measure owing to the enrolment of so many of our Irish architects as members of the British Institute, now brought so close to our homes by the united effects of steam and electricity—powers which, though known and used, were but imperfectly applied when our founders first founded our Institute had

then become necessary to protect our rights and foster our then acknowledged art.

You have heard the statement for the last session, and during that time it became manifest to the out-going Council that some complete modification of our working was necessary; and, with a view to preparing some proposition bearing on this subject, two or three of our most active brethren have voluntarily resolved themselves into a sub-committee, and will lay their views before your new Council at an early date, after which a special general meeting will be called to consider the proposed changes. Their nature I am not at present at liberty to divulge, but I can assure the Institute at large, and those present, that their object will be to meet the present requirements of the profession, by uniting its members in closer ties regarding the etiquette of practice, by extending our connection and intercourse, and (if possible) by securing an alliance with those kindred societies in other parts of the kingdom, while at the same time we will use our best endeavours in connection with "The Association" to advance and improve the architectural training of pupils and assistants in this island.

A ballot for council and officers for session was proceeded with, when the following were declared elected: *President*—John M'Curdy. *Vice-Presidents*—Sir Chas. Lanyon, R.H.A.; James H. Owen, M.A.; Sandham Symes; Parke Neville, C.E.; J. Rawson Carroll. *Ordinary Members of Council*—E. H. Carson, M.R.I.A.; F. V. Clarendon, B.A.; W. S. Cox; T. N. Deane; T. Drew, R.H.A.; C. Geoghegan; W. Hague; W. M. Mitchell; J. J. O'Callaghan; H. Smyth. *Treasurer*—Sandham Symes. *Hon. Secretary*—G. C. Henderson. *Auditors*—E. Trevor Owen; W. Stirling.

The newly-elected President took the chair, which had been vacated by Mr. Owen, and a cordial vote of thanks was passed to the latter gentleman for the ability displayed by him during the many years he has presided over the Institute.

The meeting then separated.

#### THE LIERNUR SEWAGE SYSTEM.

Our contemporary the *Sanitary Record* of the 21st devotes nearly twelve pages of its space in exposition of this system, which is supposed to satisfactorily solve the sewage difficulty. The article, which is written by Mr. Adam Scott, C.E., examines in detail the whole *modus operandi*, and concludes with the belief that "the long vexed sewage problem has at last been solved, sanitarily, technically, and financially." We hope it has, but we fear we are fated to see a great amount of writing yet, before the advocates of the rival systems, or even public boards in general, will admit it has conclusively solved the problem in a sanitary and financial direction. For our part, we view Captain Liernur's system as one entitled to careful and serious consideration for its intrinsic merits, and we hope it will be tried in England and this country, in a district where everything is conducive to its application. According to the *Berlin Tribune*, Dr. Stronsberg, an able financier and contractor for public works, has entered into a contract for putting the Liernur sewage system into the whole of St. Petersburg, for nearly £4,000,000; and the chief engineer, Cisar Stukenbergh, we are told, was appointed to report on the water-flushing, Liernur, and pail system. He spent some time in Holland examining the Liernur system, and has reported upon it in the highest terms. Captain Liernur's plan embodies the pneumatic system solely arranged for the separate removal and utilization of all putrescible matter of households, capable of being conveyed by subterranean pipes, and this it is said enables him to carry out his whole scheme in populous towns, without increasing taxation or committing what is termed an error in the water carriage system. Atmospheric pressure instead of water draws

or sucks the matter from out the houses by vacuum power to a central building in the town, where an air-pump engine works. There is no loss of valuable ingredients or a nuisance created, the matter collected is immediately converted into a dry substance called *poudrette*, by simply evaporating the water from it. All the manurial elements contained in the putrescible refuse are stated to be saved, brought without extra cost into a portable form like guano, and fit, like it, to be shipped to any distance where there is a market for the manure. We must refer our readers to the *Sanitary Record* for the further and complete details of the working of this new system. The account is a clearly-written and most interesting one.

#### FOLEY'S AND WOOLNER'S STATUES OF GEN. STONEWALL JACKSON AND LORD LAWRENCE.

OUR contemporary the *Athenæum* furnishes some particulars respecting Foley's statue of General Stonewall Jackson, which is now approaching completion at the Manor Foundry, Chelsea; and of Mr. Woolner's statue of Lord Lawrence, now completed. The first is considered one of Foley's best efforts. It is described as "of heroic dimensions, a single figure, standing, with a drawn broadsword in the right hand; this hand grasps, while it rests on, the hilt of the weapon: the point of the sword is placed on a piece of rock at the side of the figure, which is thus sustained, and in leaning on it sways slightly towards its support. Otherwise the form is firmly placed, and in repose, with abundance of energy in reserve; the head is turned a little to the left, the face seeming to look resolutely and far off, with a direct and keen gaze. The costume is modern, a horseman's short tunic, girt by a broad belt, and buttoned close on the chest, with a military collar. Strong riding boots, reaching above the knees, and rather loose trousers, complete the dress; the head is bare. The modelling is good, but not so elaborate as Mr. Woolner's; yet it is, with estimable breadth, sufficiently true to nature, and much truer than is common in modern sculpture. The figure looks best from the front, but composes well in the side views. From these three standpoints the spontaneity of the design is deserving of admiration. In this lies the highest charm of memorial sculpture. The defect of the work is in the face, which lacks vivacity, and even poetic suggestiveness."

Of Woolner's statue our contemporary states :—"The figure is of heroic size, being about ten feet in height, of bronze, and erect, with a cloak cast in ample folds over one of the shoulders, admirably disposed to give bulk to the general appearance. The head is full of dignity and energetic expression, without exceeding that reserve which is due to monumental sculpture: in this respect the pose of the whole is in thorough keeping, so that the homogeneity of the design is perfect. The costume is, of course, that of this day, and most carefully modelled in all details. The varying characteristics of different positions of the dress are rendered with rare skill and fidelity, such as Mr. Woolner has so frequently shown. Although these details are thus elaborately treated, as they should be in all modern memorials, the breadth of treatment which is desirable has not been affected in the slightest degree; indeed, this statue surpasses, in this point, any of the sculptor's former productions of a like character. Mr. Woolner never fails to design statues so that they look finely from all points of view; this one possesses this essential of fine sculpture in the highest degree; however we examine it, the lines are stately and yet free from stiffness; graceful and stalwart, the figure seems instinct with life; energetic, without being demonstrative, and elegant, with abundance of strength. There is no parade of anatomy, yet we see a man within the garments, not,



as is frequently the case in modern statuary, coats and waistcoats so laboured that they load the figure, or seem to support it, as well as to render common that which should be dignified. It is so fine a work that one regrets the opportunity has not been taken of procuring a second cast from the mould, to be erected in England; this has been done with far inferior works, but, as with Mr. Foley's Lord Hardinge, no replica has been insured of what will be one of the chief ornaments of Calcutta. We presume the figure is to be placed on a loftier pedestal than it now occupies, so as, by the fore-shortening of its somewhat excessively long lines, to appear quite right."

### THE ASSISTANT COUNTY SURVEYORS.

THE deputation of the Association of Assistant County Surveyors of Ireland, which waited upon the Chief Secretary on the 18th ult., have received a promise, at all events, of a kindly consideration of their grievances. These grievances have often been stated in our columns, and it is subject of regret and wonder that they should remain so long unredressed. The claims put forward on behalf of the assistant county surveyors are honest ones, and demand honest and straightforward consideration.

From the statement of Mr. E. C. Orpen, C.E., the assistant secretary, it has been clearly shown that the maximum salary at present allowed them by law was £80 per annum, out of which they had to deduct all their travelling expenses, the keep of a horse, vehicle, &c.—this, notwithstanding that the assistant had the control of works amounting to £6,000 or £8,000 annually. It was asked that the salary should begin at £150, and increase by £10 a-year to £200. Another ground of complaint was that no travelling expenses were allowed, although the assistants had to inspect from two to six hundred miles of roads during the year, besides visiting new works and attending sessions and assizes. There was no provision in the present grand jury laws by which superannuation could be given to county surveyors or their assistants; and it was asked that a clause should be inserted in the new bill, by which grand juries could present a competence to those unable to discharge their duties from old age or other causes. There were many old men upon the list of county and assistant surveyors, with large families, whom grand jurors would gladly superannuate if they had the power to do so. It was also complained that the assistant county surveyors were the only branches of the public service in which there was no promotion, and the deputation asked that an agreement should be made with the Civil Service Commissioners that experience as an assistant county surveyor should be reckoned in marks in future competitive examinations for county surveyors in Ireland.

The following resolution has been passed by the grand jury of Cork:—

Resolved—That we recommend the application to be made by the assistant surveyors to the favourable consideration of the Chief Secretary for Ireland, with the request that he will take the necessary steps to introduce a bill empowering grand juries to grant an increase of salary and superannuation to assistant county surveyors.

Similar resolutions have been passed by nearly all the grand juries of Ireland.

Mr. Orpen gave a detail of the duties which assistant county surveyors had to perform. In a letter recently published in these columns an assistant surveyor stated his unenviable position in the following words:—"I am drained out of £30 10s. per annum for car-hire, postage, and advertisements in the public service; this pulls down my actual income to £49 10s. These are facts that cannot be contradicted, and shew truly the heartbreaking and desponding state of the deputy county surveyors in this unfortunate country."

Mr. W. J. Henry, C.E., stated, during the

late interview at the Castle, that he thought three years' experience as a county surveyor ought to be allowed to count 100 marks in the examinations for county surveyorships. The Civil Service Commissioners had power to make an arrangement to that effect without any Act of Parliament. He also thought the limit of age beyond which a person could not be appointed an assistant surveyor should be raised from 40 to 45. In reply to questions from Sir Michael Beach, it was stated that there are 143 assistant county surveyors in Ireland. Mr. Henry stated that in some large counties there were five assistants; in others of smaller size two or three. In some cases the salaries were lower than £80. A member of the deputation stated that in the discharge of his duty he met with an accident, by which he lost a leg, and the grand jury of his county gave him employment in a district near Belfast at £60 a-year, which would have been the amount of superannuation that they would have given him had they had power to do so. Mr. Henry stated that at present the assistant was in the first instance nominated by the county surveyor, and then had to pass a qualifying examination held by the Board of Works. His tenure of office was the same as that of the county surveyor, and not at the pleasure of the latter.

We sincerely trust that the claims of the assistant county surveyors will receive prompt attention, and that the clauses asked for will be inserted in the new bill; and, if legislation upon the subject is attempted next session, as is hinted by Sir Michael Hicks Beach, he (Sir Michael) cannot plead ignorance of not being in possession of the facts of the grievances complained of. The salaries are entirely inadequate, out of which they have to deduct travelling expenses and the keep of a horse and vehicle. The sum total of miles travelled in the year by an assistant surveyor often amounts to four or five thousand miles. The want of promotion and of superannuation are also real grievances. Having to pass strict examinations made by Commissioners of Public Works, they are fairly entitled, both on account of their acquirements and duties, to be considered Civil Servants, but at present the assistant surveyors are treated worse than the sub-constables of the Royal Irish Constabulary.

### RAILWAY CONSTRUCTION AND LAND RECLAMATION.

AN application is intended to be made to Parliament next session (of which due parliamentary notice has been published) to authorise the construction of railways between the Great Southern and Western Railway at Inchicore, on the Dublin, Wicklow, and Wexford, and the Dublin and Kingstown railways, with extensions and other subsidiary works. In the carrying out of this undertaking, according to the prospectus, there will be "an embankment or sea wall, with all necessary works and conveniences connected therewith, commencing at the Martello Tower opposite St. John's-road, in the townland of Sandymount, parish of Donnybrook, and county of Dublin, proceeding thence for a distance of 110 chains or thereabouts, due east, then turning in a northerly direction to and joining the wall connecting the Pigeon-house Fort with the Poolbeg Lighthouse, at about 75 chains east of the said Fort-house. To enclose, reclaim, and convert to agricultural, building, or other purposes, all or any part of the lands and sands lying on the foreshore in Dublin Bay, within the said embankment or sea wall, the south wall, and the coast. To authorise the company to purchase and take by compulsion or agreement, lands, houses, and other property required for the purposes of the said intended railways, tramways, embankments, reclamation, and works, and to levy tolls, rates, and duties for the use of the intended railways, tramways, and works, and to alter existing tolls, rates, and duties, and to grant exemptions from the payments

of tolls, rates, and duties. To cross, stop up, alter, or divert, whether temporarily or permanently, roads, streets, highways, railways, sidings, tramways, rivers, canals, navigations, streams, sewers, pipes, and other works, so far as may be necessary in constructing or maintaining the said intended railways, tramways, embankment, and works. To vary and extinguish all rights and privileges which would in any manner impede or interfere with the objects and purposes of the Bill, and to confer other rights and privileges."

Numerous other things are proposed to be done, which reference to the parliamentary notices will shew. As far as the reclamation of the foreshores of Dublin Bay are concerned, we have already spoken favourably of such a movement, but in connection there are public rights which we in nowise desire to see extinguished.

We will not lose sight of this project, and other projects, on the part of the Dublin and Wicklow Railway.

### THE ROYAL INSTITUTE OF ARCHITECTS AND THE ARCHITECTURAL ASSOCIATION.

THE time has arrived for asking the question whether any real necessity exists for having two architectural associations in this city. One has long been in a moribund state we fear, and shows very little sign of vitality. Whether it will wake up from its rather chronic somnolency we cannot say, but as matters stand we fear the Institute is about dying the second time. It was brought back to life by a heavy magnetic shock on a former occasion, but if it expires the second time, we fear there will be no resurrection until all the materials dissolve into their original elements—

"Ashes to ashes,  
Dust to dust."

We are sorry to have to write thus, but this is an age of realities and not shadows, and the world is prone to measure mankind by what they are, and not by what they seem. We think it is advisable that the old and the younger associations should be amalgamated, so that the profession in this country would become a really representative one. The Architectural Association—though not all what its friends would desire, still it essays to do good; and by a cordial union of both bodies strength would be obtained and professional and general interests served. If we have said aught amiss we will be glad to stand corrected; but, viewing matters as they are, we are compelled to give expression to not only our own but general opinions.

### THE MEDICAL SALARIES AND SANITARY ADMINISTRATION.

IT is scarcely to be wondered at, that the medical profession of the country are keenly alive to their wants. A very large number of that body are, and will henceforth be, connected with our new sanitary boards as officers of health, and the question of remuneration is, of course, one that vitally affects them. It is patent to all, that there is a disposition on the part of most of our new boards, to cut down the expenses of sanitary administration, and therefore, in the new appointments, in pursuance of the provisions of the Public Health Act, the members of our sanitary boards are inclined to be extra economical. The expenses of the administration of the act will press heavily upon the shoulders of the ratepayers; and local rulers in their citizen capacity will, like their unofficial brethren, have to pay their share.





John Kennedy Archt

CHRIST CHURCH. - STRABANE.



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Some towns will scarcely feel the increased burden, other small towns may severely feel it. We hold, at the same time, that medical officers are entitled to a fair remuneration; and, while holding to this belief, we are also of the opinion that a little patience should be exhibited by our medical brethren, until the act is in working order and the amount of their duties is ascertained. In some places this may be known at present, but in a vast number of the new districts it cannot be known for some months to come. We are certain that the position of medical and other sanitary officers will improve as time advances, and there should be a less exacting and dictatorial spirit evidenced in some quarters. Since the commencement of last month we have had meetings and deputations in this city on the vexed question of salaries. Some members of the medical profession discussed the question calmly and put their case favourably, while others altogether ran in tangent to the moon, or in an equally inaccessible direction. The subject is clear enough, and needs no digression or deduction from political causes to account for its surroundings. The deputation of the King and Queen's College of Physicians, consisting of the President and a number of the Fellows, who waited upon the Chief Secretary on the 23rd ult., on the whole stated their case very calmly and clearly. Dr. Duncan, Dr. Haughton, Dr. Evory Kennedy, Dr. Grimshaw, and others spoke to the purpose, and Sir Michael Hicks Beach admitted that it was the duty of the Government to see that the sanitary duties were effectually performed and the officers properly paid. The Local Government Board can of course approve or disapprove of the salaries fixed by the union authorities; but, as the act empowers the guardians to fix the other remunerations, there is a chance that in many instances it will be entirely inadequate, and that even the ukase of the Local Government Board will fail to compel the guardians to vote higher salaries for some time at least. The members of the most of our new sanitary boards, it must be remembered, are guardians of the old stamp, and they need to be educated to their duties. The medical officers themselves can assist in some degree to their enlightenment, and this will be securing their own interests. We would, however, in the meantime advise an efficient discharge of sanitary duty, even where salaries are at present inadequate, as it will prove to the country that doctors are not more interested in the money question than they are in the maintenance of the public health.

#### THE DRAINAGE OF THE SHANNON.

At a meeting of the Royal Dublin Society, on the 16th ult., Mr. James Lynam, C.E., read a paper on the above subject. His plan may be seen from the following propositions:—

“First—Regulating weirs, composed of parts wholly moveable out of the river, may be constructed across the Shannon in straight lines, at right angles to the current, and may be kept wholly out of the river during high floods without any injury to the navigation. Secondly—By means of such rectangular wholly moveable regulating weirs, the drainage and navigation of the Shannon may be improved to the utmost extent necessary or desired, at a cost of £10,000 less than by the system of oblique submerged weirs. Thirdly—That three regulating weirs should be constructed next summer at Killaloe, Meelick, and Athlone, as the first part of the improvement works, and the amount of excavation that may be necessary in the shoals should not be fixed on or determined until the effects of regulating weirs will have been observed during a season of floods. Fourth—As the division of the Shannon from Limerick to Worldsend at Castleconnell has been left out of the scope of the improvements by the Shannon Act, so should the other small division from Worldsend to

Killaloe be left out, and let the proprietors of these two divisions be encouraged to drain them under the powers of the Ordinary General Drainage Acts.”

The paper gave statistics of the mischief annually done by the flooding of the lands adjacent to the Shannon, and noticed the natural and artificial obstructions to the flow of the current. The artificial obstructions were the navigation weir mounds, of which there were six from Carrick-on-Shannon to Killaloe, a distance of 110 miles. In wet weather these weir mounds obstructed the passage of the water to such a degree as to cause the river and lakes with an area of 67,000 acres to be gradually filled up to the level of the land; and then if another great rainfall occurred, 13,000 acres of land would be inundated and covered by from three to six inches of water. Thus in autumn floods the artificial obstructions had nearly five times the evil influence in causing inundations which the natural obstructions had. These weir mounds were wholly immovable and without any sluice or flood-gates; and, therefore, it was impossible to give any relief. It was quite usual to see the crops on many thousand acres of land rotting under a flood six or eight inches deep, while there was a clear fall of water at the river mounds. The Act 37 and 38 Victoria, cap. 60, was now passed, and £300,000 was appropriated for the improvement of the Shannon drainage and navigation.

Two civil engineers were employed and commissioned in 1866, one by Government, and one by the riparian proprietors. Both were paid by the Government. Each was ordered to make an engineering survey of the Shannon, and to design and estimate what works he considered necessary for improving the navigation and the drainage as far as necessary, and each engineer did so. Both sets of plans and sections were lodged in the library of the House of Commons in 1867. Both reports, containing the estimates, &c., were published by order of Parliament in June and July 1867. For the two surveys and estimates the Government paid the two engineers about £9,000. The paper stated in detail and criticised the plans of the two engineers, and concluded as follows:—It is now proposed to construct three regulating weirs—one at Killaloe, one at Meelick, and one at Athlone. The cost of these may be about £30,000. They will let off far more flood water in proportion to their cost than any amount of excavation. They will at once, and without any further excavation than is necessary to place them in proper position, protect the lands from all ordinary floods, and entirely free the lands from saturation in spring. By their means the two great lakes, Lough Derg and Lough Ree, may be kept down to the navigation level during all ordinary wet weather and small floods. There will be an empty reservoir in these two lakes of 30,000 acres 3 ft. deep.

These reservoirs would receive and store half a million cube feet of flood-water per minute entering constantly for nine days, without injuring any crop.

When the action of these weirs will have been observed during the winter of 1875, and their effects on the floods fully experienced, then the quantity of excavation necessary to effect a sufficient drainage may be accurately estimated. It will be found that very little excavation will be required at Killaloe, and materially less than what is estimated for will be required in the other shoals.

In answer to a question, Mr. Lynam said the lowering of the waters of the Shannon, as he proposed, would have no effect on the flood waters of the Suck. The moveable weirs which he proposed had been used on the Seine for the last forty years with great advantage.

Sir Michael Hicks Beach, the Chief Secretary, thought there was much in Mr. Lynam's paper worthy their attention, but the Government thought right, for sufficient reasons, to adopt Mr. Bateman's plan. The works would be carried out by the Board of

Works of Ireland upon those plans; and of course Mr. Bateman's advice on such subjects was entitled to the greatest possible respect and weight. He gathered from Mr. Lynam's paper that the difference between himself and Mr. Bateman was merely this—that Mr. Lynam thought that much, if not all, of what was wanting might be effected by a system of sluices and French weirs; while Mr. Bateman's opinion, on the other hand, was that further and more expensive works would be required. He (Sir M. Beach) could not undertake to discuss the merits of the different systems of sluices; but he thought it obvious to any gentlemen, whether engineers or not, that on a river like the Shannon, where it would be very difficult at any time to find skilled labourers to attend to the sluices, these should be as little complicated as possible, and as nearly self-acting as possible. How far the sluices Mr. Lynam proposed would fulfil those conditions it was not for him to say—that was a question that must be decided by those who were competent to settle it. But he thought there was much good sense in the conclusion, with the expression of which Mr. Lynam closed his paper. All parties, so far as he was aware, were agreed in objecting to fixed, immovable weirs, and in recommending the adoption of some kind of sluices. It was not so universally agreed what other kind or amount of work should be required in order to secure the safety of the Shannon banks. As he (Sir M. Beach) had already stated, he had no power to act for himself in this matter. The Board of Works had the charge of carrying out this great work. They were directly responsible to the Imperial Treasury, as they ought to be in cases where the public money was expended. But he might venture to express his own opinion that it would be only reasonable that, in considering what parts of this work should first be undertaken, due weight should be given to the fact that sluices were agreed upon by all as necessary parts of the work; and that, therefore, it would appear to be sound common sense that they should endeavour to arrive at the best form of sluices, and to apply them in the places where they might be required before undertaking expensive works in the nature of excavations. He must, however, express his conviction, gathered from a perusal of the whole of that portentous volume which Mr. Power had held up to them, and also from conversations with Mr. Bateman and others well qualified to judge, that one of the great difficulties of the Shannon drainage was this—that the bed of the river was in many parts, quite irrespective of the weirs, of insufficient size to carry off the flood water, and that, therefore, a very large amount of excavation or dredging would be required, which might cost a very considerable sum, in order to secure the satisfactory accomplishment of the work. That, however, by no means interfered with what he had already stated. He expressed—as he must again repeat—his own opinion rather than the opinion of the Government; but he was convinced that in the carrying out of this work those who were entrusted with it would not only endeavour that it should be carried out to perfection, but would also try to do it as cheaply as was consistent with efficiency (which powers were taken in the Act of Parliament to expend £300,000). It might not be necessary—he hoped it would not be necessary—that the whole of the money should be expended. He hoped those proprietors really interested in the matter would bear this in mind when they considered how far it might be compatible with their peculiar interests to consent to the charge that would be laid upon them; and he hoped they would also recollect that probably no drainage work in that kingdom, or in any other part of the United Kingdom, had ever been proposed to be executed upon such favourable terms to the locality interested; and if a mistaken notion of economy should tempt them to throw away the chance now offered, it might never be offered again.



ARCHITECTURAL ASSOCIATION  
OF IRELAND.

## PRESIDENT'S OPENING ADDRESS.

THE first duty which devolves upon me this evening is to convey to our visitors the best thanks of this association for the honour they have conferred upon us by their presence in our midst. It is very encouraging to us as young members of a young society to know that we have so many friends outside the profession, and that our endeavours to establish a higher standard of architecture will be certain to receive cordial recognition at their hands.

In the next place I desire to express to our members my deep sense of the honour they have done me in electing me to fill the responsible post of President. I have no wish to make any profuse promises as to my performance of the duties which devolve upon me; I am encouraged by the knowledge that I shall be ably supported by the other officers of the association, and I will therefore only say that it is my earnest desire that it may flourish and extend its sphere of usefulness.

In the report which has just been read, we shall find matter for regret and also for encouragement. It is, unfortunately, true that the attendances at our various meetings shew a falling off from those of the previous session. This fact, however, is not really so significant as might at first sight appear. The former session was our first, and it is probable that some came to our meetings attracted by their novelty, who left us when the freshness of the thing had worn off, and their momentary enthusiasm had subsided. Then several active members who were located in the country last year were thereby prevented from being with us. However, we hope and trust that this coming session will shew an improvement on its predecessor in this respect.

The papers read at our monthly meetings comprised a considerable range and variety of subject, and were of a very instructive character. The list of subjects for the coming session promises well; and I trust that those gentlemen who take upon them the trouble of preparing papers will at least be favoured by large audiences. Allusion has been very properly made in the report to the failure of one or two members to meet their engagements whose names were on the programme for papers. We hope to be spared the same inconvenience in future, and that any gentleman who may be unable to attend will give our secretaries timely notice of the same, or, better still, will have his paper read by deputy.

The members of our association will join with me in the opinion that we have been singularly fortunate hitherto in our selection of competent officers to conduct its affairs; they have laboured with praiseworthy zeal on its behalf, and we have to thank them in great part for its successful working so far, and for such measure of prosperity as it has attained to. I shall not, I hope, be considered invidious if I mention our late President and honorary secretaries as having been pre-eminent in this respect; and I am very glad to see that one of the latter, Mr. Robinson, has consented to retain his post, and continue to us the benefits of his most valuable services. These gentlemen have devoted much of their time to the discharge of their sufficiently onerous duties, and some acknowledgment of these services is certainly due to them.

Although we have a respectable muster of names on our roll, I am aware that there are many young architects yet standing aloof who ought to join our ranks and participate in those benefits which such an institution as ours has to offer. I may add that there are many of our members whose faces we seldom or ever see, but whose presence more frequently amongst us would be a source of much pleasure and profit to us. In a country like ours where the number of practitioners must always necessarily be limited, a union of all our forces is the more desirable, in order to give such a society that control and influence which should belong to it.

One of the chief benefits which our association confers upon its members is, the establishment of a common platform for the mutual interchange of ideas. Here, losing sight for the moment of the constant worry and keen rivalry of every-day practice, we join together in the discussion of some question arising out of our many-sided profession, and contribute our individual experience or criticism of the subject under review. Another important element about it is, the valuable opportunity it affords of promoting personal friendships amongst the members, which may prove of lasting benefit to us individually, and indirectly to the whole profession, by fostering a wholesome feeling of *esprit de corps* amongst us.

I could wish that no necessity existed to point out the advantages we offer to our younger members; but unfortunately the attendances at our meetings have not been such as to warrant the supposition that they are properly appreciated. Large attendances insure a deeper interest in the subject and wider discussions thereupon, so that the value of the instruction imparted is increased thereby. And a word of acknowledgment is due to those senior members who have attended these classes to instruct others, often, I can well believe, at some sacrifice to themselves. The sketches submitted for competition at the Class of Design, taken as a whole, were very creditable; some of them evinced much originality and good taste, while there were fewer examples of crude and impracticable designs than might naturally have been expected. If I may be permitted to express my opinion, I would say that I think our committee erred somewhat on the side of complexity in their selection of subjects. It appears to me that simple and isolated subjects would suit our purpose better, and would be more within the scope of our students, taking into account the limited time at their disposal, while they would still afford a sufficiently wide field for the display of the fancy and ingenuity of the designer.

I am sure you will agree with me in the assertion that, were our association supported as it deserves to be, and as similar societies are elsewhere, it would rapidly become a potent guiding influence in the profession in Ireland. The artistic training of our pupils would receive an immense impetus thereby, and they would be enabled to enter upon the arena of public life with minds better furnished and prepared for its manifold duties, than they can possibly be by merely office routine as at present. They would be made acquainted with their own shortcomings by the competition they would undergo in our classes, and would be enabled to improve themselves in those directions where most needed. So in time, by raising the standard of acquirement of its professors, the status of the whole architectural profession would be raised, and, instead of the anomalous position it occupies at present, our noble art would take an equal rank, as it should do, among the better recognised ones of Law and Medicine. Nay, more—I look forward to a time when we shall possess some such central controlling power as belongs to the other professions, so that our resources being duly organised and concentrated, instead of being isolated as at present, we may be the means of bringing up a new school of architects, who shall prove worthy of their epoch and of their country.

It is with such aspirations, therefore, that we entreat the earnest and sympathetic co-operation of all who are interested in the development and elevation of Irish architectural art. Surely our aims cannot be looked on as altogether visionary. It will be an evil day for our art when such an attempt proves finally futile. It is true that our country has suffered much in the past from the effects of disunion, but this ought to prove a stimulating motive to gather round a purely neutral and unsectarian platform such as we offer.

Furthermore, we must bear in mind that these great objects must be accomplished

mainly, if not altogether, through our own efforts. We must not expect much aid from the State, for our Government is not one to do very much directly for the encouragement of any kind of art, least of all of Architecture. But even if we should have granted to us all that we can fairly claim from the State—such as the establishment of museums of art, with their accompaniments of lectures, and possibly some day a charter for the representative body of Irish Architects,—we would still have the chief and most essential portion of the work to accomplish for ourselves. It is to our own exertions, therefore, we must ultimately look for all substantial and permanent success in the matter.

In saying this, however, I do not mean to underrate in the least degree the value of Government assistance. On the contrary, I regard art museums and galleries as being exceedingly useful, and indeed necessary auxiliaries to the proper education of the architectural student. Being cut off by our insular position from those favoured countries where examples of magnificent building abound, we, more than others, require those aids and stimulants to artistic invention which can best be supplied by the study and contemplation of copies and casts of the best architectural examples. When, therefore, we see money lavishly spent on South Kensington and other metropolitan museums, while Dublin receives next to nothing in support of the study of architecture, and but little for the kindred arts, without in any degree grudging our London brethren the good things they have provided for them, we may fairly assert that equal justice is not dealt out to us in this matter, and that the capital of such a country as ours has strong and righteous claims to its fair proportion of those moneys devoted by Government to the promotion of art. Let us hope that our representatives in Parliament will unite in pressing our just claims on the attention of Government, and complete the good work commenced last session by Sir Arthur Guinness.

There has not been much in the architectural world during the last twelve months to call for any special notice. The abnormally high range of prices during the last three years, which brought certain kinds of buildings almost to a stand still, has apparently reached its culminating point, and now exhibits a slightly downward tendency, so that we may hope for a more moderate and settled scale than has prevailed for some time past. The prospect of a cheaper market, combined with the good effects of the late bountiful harvest, will probably exercise a stimulating influence on the building trade during the coming year, and produce proportionately better employment for ourselves.

There has been, however, considerable activity among works of a public description during the last twelve months. The various contracts in connection with the river walls and docks, the new buildings at Messrs. Guinness' Brewery, and other engineering works, have all made due progress. The widening of Essex Bridge being now completed, we are in a position to form some opinion as to the effect of the altered structure. Everyone will acknowledge its greatly increased convenience, as well as the skilful and economic manner in which the enlargement has been effected. What has been gained in convenience has, however, in my humble judgment, been lost in beauty. The old bridge, steep and clumsy as it was, had yet a quiet massive dignity and fitness of its own, which gave proof that its designer, the Architect Sempie, was concerned for the artistic excellence of his work as well as for its durability. Those who regard the renovated structure, with its mean-looking lattice girder parapets, cast iron ornament, and useless granite corbels, must regret that its clever engineer did not take counsel with some man of taste, and so have avoided these blemishes on a work of much public utility and engineering skill. I think it will be admitted, that if we do not always shine in the application of scientific con-



struction to our works, neither do our fellow-workers, the engineers, allow themselves to be troubled with many artistic scruples of conscience when designing the ornamental portion of their structures. We must acknowledge that, though highly useful, their railway bridges and other works are not graceful. It would be a great gain to both professions, if they would confer together more frequently than they do, on those portions of their designs which belong more properly to the other's province. We should then have fewer ill-constructed houses on the one hand, and fewer ugly bridges on the other.

Turning to matters more closely connected with ourselves, we notice with pleasure the steady progress and excellent workmanship of the Christ Church buildings. The Synod Hall and its auxiliary buildings being now roofed in, we are able to form an adequate idea of what the effect of the whole will be when completed. The idea of retaining the old church tower and making it the dominant feature of its own group, as the central tower of the cathedral is of the larger pile, is a very happy one, and the massing of the whole, each part being complete and distinct in itself, yet united by the bridge over the intervening roadway, promises to be very imposing. We can now see clearly how unwise it would have been to have carried out the original plan, of placing the Synod Hall at right angles to and on the same plot as the cathedral, as such an arrangement would have brought the old and the new buildings into direct competition with each other, and would have marred the only open view of the cathedral we possess.

Further west, the fine church of St. John is receiving its finishing touches, and the scaffolding having been removed, we have now a clear view of the splendid west front. Despite some weakness in the tower, it is to my judgment the most beautiful and best proportioned modern church front in Dublin, and the only matter for regret is, that its site should be so unworthy of it. Pursuing this route one is surprised at the number of costly and handsome warehouses, affording satisfactory evidence of the growing prosperity of this once fashionable, but latterly neglected quarter. It is to be hoped, now that the Christ Church buildings are approaching completion, that a vigorous and sustained effort will be made to carry out that long-projected thoroughfare from Dame-street to Christ Church place, and so rid us of the steep and tortuous ascent of Cork-hill.

Public improvements are certainly not carried out rapidly in Dublin, though I am not going to say a word in detraction of our well-abused Corporation upon this occasion. But in prospect of a large increase of income (about £25,000 a year, I believe) which it is expected will be derived from the rating of our public buildings, we may not unreasonably expect that this long-delayed improvement will receive the attention it deserves, and that we shall soon see this public disfigurement removed.

With the immense improvements and embellishments which are being carried out in every large town in the United Kingdom, Dublin presents a humiliating contrast. Little or nothing has been done towards this end by any public body, and what has been accomplished is due to the munificence and public spirit of private citizens.

We have reason to congratulate our Vice-President, Mr. Drew, on the opportunity which has been afforded him, in the extension of the Hibernian Bank, now in progress, of giving the features of its fine front their due position and proportion. Formerly the building gave me the impression of being somewhat overweighted, an impression produced, no doubt, by its loftiness and relative narrowness; now, however, that its length is being doubled, this unavoidable defect will completely vanish, and the stately and imposing façade will assume perfectly harmonious proportions.

Those who have watched the direction of public taste, as shown by the buildings of the last twenty or thirty years, have, I consider, abundant evidence that the æsthetic wave which is one of the most remarkable features of this Victorian epoch, has penetrated Ireland in all directions. Its influence, however, has hitherto been chiefly confined to the domain of ecclesiastical and public buildings, including offices under the latter term. And while we cheerfully acknowledge the immense strides which have been made within this period in the architecture of these, we must regret that the same rate of progress, or anything approaching it, has not been manifested in the most important province of all our dwelling-houses. No doubt there have been many large country houses built, some of them of real artistic excellence, within this period. It may be mentioned too, as illustrating the increasing prosperity of the country, and as being in other respects an encouraging fact in this era of absentee landlords, that there are at present in process of erection two mansions of the largest size, the cost of each of which will considerably exceed £50,000. But the discouraging fact remains that the average houses of the middle classes amongst us are much below those of the same grade in either of the sister countries, both on the score of excellence of accommodation, and æsthetic design. This backwardness is, I conceive, to be attributed mainly to the strong conservative feeling of our public on Art matters. They have a prejudice against any picturesque arrangement of their houses, as productive of discomfort internally, and as being unsuited to the climate, and they cling, with a devotion worthy of a better cause, to the square block of their grandfathers' day, with its square sash windows, and walls neatly plastered, and more or less ornamented with cornice and dressings composed of that chaste material. Internally the arrangements are of the simplest. The apartments are arranged right and left of the hall and staircase, which are carefully adapted to act as a huge shaft to carry all the winds that blow through the house when the front or back door shall be opened. I do not exaggerate when I assert that nine-tenths of the middle class here look upon a house of this sort, if it be fairly well built, as being the *summum bonum* of domestic architecture. Well, gentlemen, it will be for you to break through this thick crust of prejudice, and to prove to our employers that they will be the gainers in comfort and in all other respects, by allowing you to bring artistic treatment and common sense arrangement to bear upon their work. If you are faithful to your convictions, you will be rewarded with success in the end, for there are many indications that a desire for something better is growing among the public, so that we may hope to see the day when the class of house I have just alluded to, will be the exception instead of being the rule.

The prevention of disease by means of improved sanitary arrangements, occupied the attention of Parliament during last session, and a measure to amend and consolidate the previous Acts was passed. This has recently come into force, and our public bodies have been engaged for some time past in appointing special sanitary officers for their respective districts under its provisions. If I mistake not, we are but on the threshold of this description of legislation, and, that for many years to come, such enactments will figure prominently on the statute book. Statistics having conclusively demonstrated the fact of the diminished death-rate, which invariably results from the adoption of proper sanitary precautions in populous towns, we cannot remain contented with our efforts, until the mortality in such places shall have been brought within the limits of healthy country districts.

In Dublin, the field of operations is so vast that we may assert with truth, that what has already been done in this direction, is as nothing to what remains to be accom-

plished. We have to cope with the evils of overcrowding, in its direct form. Old houses, designed and adapted for the use of a single family, are tenanted by a dozen or more in each, so that their inmates literally swarm like rabbits in a warren, with a complete absence of cleanliness or even decency, from want of the requisite sanitary appliances. I have myself seen sufficient of these dens to make me surprised that the death-rate of Dublin is not double its present figure—high as that is.

It behoves us architects, therefore, to devote our best attention to this most important subject, and to study by the light of physical science to construct the buildings committed to our care with an anxious regard thereto. In particular, I would urge upon you the vital importance of having a well arranged and perfectly constructed system of sewerage provided for every dwelling. In dealing with old houses, where nothing is known about the sewers, make it a rule to insist, as far as possible, upon having them opened and carefully examined. If they prove to be perfect, such knowledge will give certainty to the owner, and consequent peace of mind on the subject. If, on the other hand, they be found defective, you will have discovered the root of what might prove a fatal mischief if not detected. Take especial care to provide for the thorough ventilation of your pipes, and in particular of the cess-pool, that chief generator of sewer gas. If it should be thought that I have laid needless stress on this point, I would ask you to remember, that the evil consequences of its neglect are so tremendous as to make it an imperative duty to insist on its paramount importance to life and health.

The value of a thorough knowledge of construction, and the proper application of the various materials in building is so essentially the first requisite of an architect's education, that I feel constrained to touch upon it here. It is wonderful to consider the apathy which exists upon the subject. Take the average pupil who has served his articles, and presumably completed his professional education, and examine him on the most elementary questions of every-day construction, and in most cases, I fear, you will find him deplorably ignorant on the subject, although he will probably be able to get up and tint very prettily an elevation or even a perspective, and will hold decided views on the relative merits of rival styles.

Notwithstanding these shortcomings, our fledgling, through the influence of admiring friends, will probably have some real work entrusted to his charge. Here his difficulties begin, and he must trust to mother wit and the good nature of the friendly contractor, to save him from the consequences of his incapacity. Examples of this sort would be less frequent were greater attention paid to technical education while in the office, and also, I may add, were our classes of construction attended more regularly. It may not be necessary, as some assert, to place the pupil in the carpenter's shop for a year or two, and doubtless such an arrangement would have its drawbacks; but every facility should be granted the pupil to visit and study whatever new buildings are within his reach at every stage of their progress. This is the only method to arrive at a clear practical knowledge of construction.

An excellent arrangement, where practicable, is for the student to undertake the duties of clerk of works to some building for two or three years after the completion of his articles. There can be no better training than that which the duties of such a position afford. The student not only sees but directs the execution of the various works in the most minute parts. He experiences the discipline of being placed in a post of trust and responsibility with the task of directing others within due limits. By this means his self-reliance and judgment are brought into play and exercised, while he feels that with the controlling power of the architect over him he cannot go far wrong. There are just the qualities



that most need to be developed, and it seems clear that some such training as this is quite necessary before the young architect undertakes work on his own account, unfettered by any superior authority.

An intelligent pupil, too, will pick up much valuable information from conversing with and seeking instruction from builders or their foremen, with whom he may be brought into contact. Information of this kind is often of more value than any that can be derived from books, and is generally better remembered. I have heard men of high position in the profession assert that they were largely indebted for the practical knowledge they possessed, to the experience of men who were masters of their respective trades.

In fact the practical information which, according to theory, an architect should be master of is so vast in amount and so various in kind as to be virtually beyond the attainment of any one man during the course of even a long life. Hence the sanguine student must not jump to the conclusion that because he has made some progress with his studies, he is at all near the end of his subject. Though he

"Scorn delights, and live laborious days"

in this pursuit, he need not expect to grasp it all, for, as knowledge grows wider, it will reveal to him how much more lies beyond his ken. These considerations, while on the one hand they should teach us to form a humble estimate of the extent of our present acquirements, should, on the other, encourage us to take advantage of our opportunities as to make the utmost progress, and so in time become master workmen in very truth.

I am confident that there is but little occasion to address you on the subject of your relative duties to your employer and his contractor. Still, I may be permitted to point out an error into which we young architects are somewhat prone to fall. It is when, in our zeal for what we conceive to be our employer's interest, we exact more from the contractor than we should do in strict justice. This fault—often committed with the best intentions I am persuaded—arises from a misconception of the nature of an architect's duties. We are not to look upon ourselves as advocates on behalf of our client, but rather as arbitrators between the two parties to the contract, and our offices, as some one has well remarked, as little courts of equity, where all differences shall be carefully and impartially considered, and decided on in strict accordance with the terms of the contract entered into between the two interested parties. If we understood better and acted more thoroughly in the true spirit and scope of our duties, I have no doubt but that we should be enabled to nip many an incipient law-suit in the bud, and so save the pockets as well as the tempers of both parties, even at the risk of offending our legal friends.

Just a few words in conclusion. You are all well aware that scientific and practical subjects form but one side of the architect's education, and that there remains the other and complementary æsthetic side. We have not only to construct our work well and ingeniously, but we must likewise build with good and fine taste, so that our structures may become works of art. Theoretically, the architect should excel in each branch, but practically it will be found that no one does so, and that the necessary qualities of mind are never found to co-exist in equal proportions in any individual. In almost every instance there will be found a leaning in one direction or the other which is instinctive and constitutional, and which, though it may be checked, or modified by culture, will yet retain its original bias. There have been perhaps a few exceptions to this rule, notably among the great Italian artists of the fifteenth and sixteenth centuries; but in ordinary it will, I think, be found to be as just stated, and I would therefore counsel each of you, when you shall have made some progress with your studies, to ascertain in what direction your own special aptitude lies, and,

having found it, to make it the prominent and abiding object of your study. Do not, however, allow your preference to interfere with the acquisition of knowledge in other fields, and always remember that the rudiments of construction should form the ground-work of all your studies; otherwise your aspiring fancies will never become more substantial than "castles in the air."

Moreover, in these days building is becoming more complex than formerly; new materials or fresh combinations of old ones are being introduced from time to time. Hence we may reasonably expect that in the future the tendency of architectural practice will be in the direction of specialities under separate professors. An instance in point is the separation of the profession of Engineering from the parent one of Architecture, which has taken place in recent times, and I cannot help thinking that further separations are inevitable in the future. In view of this it will be advisable to develop to the utmost any special talent which we feel ourselves to possess, so as to be able to turn it to good account when the opportunity arrives, at the same time extending our culture in other directions.

In the earlier days of the Gothic Revival, a feeling grew up amongst its more ardent disciples that no good thing could come out of the old Classic style, so used up had the latter become. If any old-fashioned client was so stupid and ill-advised as to insist in adhering to it, why nothing was easier than to take down "Chambers," and copy columns, cornices, pediments, &c., *ad libitum*. Having all these cut and dry to his hand, one could not go far wrong.

Well, gentlemen, I need not inform you that these extreme and narrow views obtain but little favour to day. "A change has come o'er the spirit of our dream." But if any such feeling should still linger amongst us, I would advise those who cherish it to turn to the ancient Greek examples and to study them in a candid and catholic spirit. They will perceive in them ample evidence of the highest genius, distinguished by an exquisite balance and harmony of proportion, altogether unapproached in the whole range of architectural art.

It should indeed be sufficiently obvious that a phase of art which could command the undivided allegiance of the cultivated and magnificent Romans, and hold sway over the taste of civilized Europe for two centuries and a-half following the revival of letters in the 16th century, must possess an immense inherent vitality. Nevertheless, the internal evidence which it manifests of the highest order of beauty to the impartial student, is still more satisfactory and convincing. I would therefore commend to your notice the study of these master-pieces of antiquity, not merely for the practical reason that it is quite possible that the style founded thereon will yet figure prominently in our future architecture, but also because of the excellent training in the discernment of beauty of form and proportion which their subtle curves afford. If I have said nothing here to advocate the study of mediæval art, it is surely not from any wish to discourage it—far otherwise. But it seems to me that our present danger lies rather in the neglect of the Classic and too exclusive a devotion to its picturesque rival.

I am persuaded that we should banish from our minds the idea so widely entertained, that any really fundamental antagonism exists in the genius of the art which has produced such widely diverging phases. The apparent contradictions in each are rather the result of the powerful influences which differences of religion, race and climate have produced in their growth and development. And as a means of cultivating a clearer conception of the possible union of the two seemingly opposing principles, I know of nothing better than the study of the examples of the best 16th century work, both here and on the continent, as well as some of the Northern Italian work of an earlier date, in all of which we find in-

stances of their fusion with the happiest results.

Each of us who has the opportunity of foreign travel—and there are few who have not in these days—should certainly avail themselves of it while they are still unburdened by the inevitable and fast-growing cares of later years. In order to reproduce beautiful forms—still more, to invent them,—the mind must be stored with the recollections of the works of great artists, otherwise it cannot create or originate. Even in the poet's art, the most creative of all, the one

"That gives to airy nothingness  
A local habitation and a name,"

you will see how essential it is that the mind shall be educated in all forms of knowledge from which the poet draws the figures and metaphors in which he clothes his fancies. Thus our best living poets—Tennyson, Browning, and Arnold—are men of exceptionally high culture and power of observation. Moreover, the study of these remains will prove of great service in educating the eye and hand of the student, and will enable him to sketch with rapidity and certainty. It will also lead insensibly to the habit of observing those niceties of proportion and points of construction which cannot be so well learnt by any other method, and which will prove of the utmost value in after life.

But the chief and foremost object of such study is the acquirement of what I may term the sentiment of noble architecture. This can only be adequately felt by visiting these grand old structures. Photographs and drawings (most useful in their own way) cannot fill the place of this. Nowhere but beneath the shadow of the glorious temple can you drink in its fulness the soul which the artist has breathed into his work, and which will preside over it so long as one bay of it remains. No, we must go to the fountain-head if we are to gain the highest artistic inspiration, and there we shall rise with the contemplation of the noble pile before us, until a generous spirit of emulation shall burn within us—a spirit which shall bid us, according to the measure of our opportunities, go and do likewise. If you can approach your work with something of this glow of feeling, you need not fear that you shall not produce true architecture. It may be crude and unequal at first, but culture and experience will amend that. At all events it will not be lifeless.

The visions you have seen and which you will closely cherish of those stately memories of the past, will inspire you with a desire to throw into your work something akin to the feeling which animated those old artists. You will thus lose sympathy with commonplace work and low art. A musician nurtured in the glorious harmonies of Handel and Beethoven will have but little love for the insipid melodies of Offenbach and his school. So you will find that, if you continue to work in a true spirit, the whole tone of your æsthetic nature will be raised and purified thereby, and you will be in a fair way to produce works of real art. Do not strive too much after so-called originality of design; it is a distinction difficult to attain, and often attained at the cost of all those qualities which should make our work precious. Let us always remember, however, that we are artists—that our mission is to do beautiful and good work as far as in us lies, and that our works will remain long after we shall have passed away, to be a memorial of the use we have made of our opportunities. We may not be rewarded by any large degree of success, though good and true work is not so common as to remain long hid. But whether he prove successful or not, the true artist has that within him which is above all material gain. He has the serene gratification which springs from the contemplation of forms of grace and loveliness, and the proud consciousness that he has created and will leave behind him new works of beauty where none before existed. This consciousness will indeed be to him a solace among the vicissitudes and discords of this changeful life, and will prove its own exceeding great reward.



## THE ROYAL IRISH ACADEMY.

THE announcement that the new President, Professor William Stokes, would deliver his inaugural address last evening, drew together a large number of members and visitors to the Academy House. The address, which occupied an hour and a quarter in its delivery, was listened to with pleasure and delight, and was frequently applauded. A vote of thanks was proposed by the Rev. Professor Jellett, seconded by the Rev. Dr. Russell, and carried by acclamation. We hope to be able to digest this valuable address in our next issue. The next meeting of the Academy will be on the 16th inst.

## THE LIVERPOOL ARCHITECTURAL AND ARCHEOLOGICAL SOCIETY.

CONCERNING the excellent address of Mr. Joseph Boulton, F.R.I.B.A., the president of the above body, delivered at the opening of the twenty-seventh session, and now republished in pamphlet form, we will have something to say in our next issue. We agree in much of what the president states, and will endeavour to bring the facts home to the understanding of our professional readers, that they may inwardly digest them for their own profit and the public advantage.

## THE INSTITUTION OF CIVIL ENGINEERS, ENGLAND.

At the ordinary meeting of the session, held on Tuesday evening, the 24th of November, Mr. Thomas E. Harrison, President, in the chair, the paper read was on "The Pennsylvania Railroad, with Remarks on American Railway Construction and Management," by Messrs. Charles Douglas Fox and Francis Fox, M.M. Inst. C.E. The following papers will be read at next meeting, Tuesday (this day):—Discussion upon Messrs. Fox's paper, "The New South Breakwater at Aberdeen," by William Dyce Cay, M. Inst. C.E.; and "The Port of Kuslendjie, Turkey: Extension of the South Jetty," by George Lenton Roff. The monthly ballot for members will also take place at this meeting. We will give an extract from the "Pennsylvania Railroad" paper in our next issue.

## NEW RAILWAY OPENED.

THE Ballaghaderreen Railway, joining the Midland at Kilfene Junction Station, has been lately opened for traffic. Ballaghaderreen is one of the best country markets and fairs in Mayo, with a very large population, chiefly small tillage farmers round it who are great producers. Lord Dillon, the owner of the town, and nearly 100,000 acres, has subscribed largely towards it by a rent-charge on the estate, the Board of Works advancing the money. Many of our landlords having only a life interest can do this through the Board of Works, but we regret only three or four in Ireland have taken advantage of it. If the line was extended to meet the lines to Wexford, Castlebar, and Ballina, it would give great facilities for local traffic. The several proprietors, by following Lord Dillon's example, could soon open up the country.

## OUR FISHERIES.

NOTHING would increase the east coast fisheries of Ireland more than the building of piers, and dredging Arklow, Wicklow, and Ardglass harbours—all so convenient for the herring fishery. This should be done at the Imperial cost, as they would be as much frequented by English, Manx, and Scotch vessels as Irish. One dredger would be sufficient for these and other harbours. Greenore might be made one of the finest fishing stations in Ireland, having daily communication with Holyhead and all parts of England, by the London and North Western Company, and with Belfast and Dublin by rail. The railway company, how-

ever, is able to give all facilities for the herring fishery, the freight of which would be a large item in their receipts.

## THE FEVER AT OVER DARWEN, LANCASHIRE.

THIS unhappy spot is not likely to soon get rid of its trouble. The fever, it is stated, has within the last few days again broken out. There are ten or twelve new cases, some of which are of a virulent character. It was fondly believed that the awful visitation had almost vanished from the neighbourhood. The local *News*, in commenting upon the state of affairs, remarks:—"The fact is that, to every one who knows the local circumstances it is transparently evident that an attempt is being made to make capital out of the town's misfortune for sectarian and party purposes. The present state of the town, however, is not the result of the neglect of a summer, but of mismanagement, jobbery, and neglect, extending over a series of years."

## CIVIC LYRICS.—No. LXXIV.

## THE LIFFEY DIFFICULTY SOLVED.

"I propose to fork the river above King's Bridge, dividing the water into two equal portions, and turning the currents as flushing agents into the parallel sewers. Next I would fill in the space occupied by the river from the above-named bridge to the Custom House. The line of quays would be thus amalgamated, and a boulevard eclipsing that of the Champs Elysees created."—For further details see "New Plan for the Improvement of Dublin and the Liffey." By Gobhan Saor, jun., C.E.

Adown by Bachelor's-walk,

And over on Usher's Island,

I heard some engineers talk

Of turning the Liffey to dry land.

'Tis cheaper, they said, to sweep

A road than to cleanse a river;

And the stones of the bridges will keep

The streets in repair for ever.

Happy thought!

And the stones of the bridges will keep

The streets in repair for ever.

Brilliant original plan

Of engineers' talent patent;

Come, let us behold the man

Whose genius has long been latent.

Henceforth local rule will be cheap;

Farewell to the stinking river;

We've the stones of its bridges to keep

The streets in repair for ever.

Happy thought!

We've the stones in its bridges to keep

Our town in repair for ever.

CIVIS.

## A MEMORIAL TO THE DUKE OF LEINSTER.

A movement is on foot to raise a memorial in honour of the late Duke of Leinster, for his public service to his country. A wonder is expressed by many that the matter has been so long neglected. It is proposed that the great east window of the church of the ancient cathedral of St. Brigid, Kildare, should be a memorial to the Duke. By his munificence, the south transept of the ancient cathedral will soon be restored.

## THE CITY LIGHTING.

We willingly give place to the annexed correspondence on the unequal lighting of the city lamps, and the more so, because we always have been, and are still, of opinion, that it is the duty of the police authorities to interpose, and check errors of a certain character. However, this correspondence furnishes another illustration of the truth of the old proverb, that "one man may steal a horse while another," &c.:—

41 Cuffe-street, 28th Nov., 1874.

MY LORD MAYOR,—I enclose to your lordship a copy of a letter written by me on the subject of the public lighting, and addressed to the Chief Commissioner of Police, along with a copy of the reply thereto. In addition to the inequality of the light emitted from many of the public lanterns, the waste of gas, &c., very many of these lanterns are to be seen dirty, many of them also having the glass broken—everything tending to show the

absence of a proper supervision, and that the present system of inspection of public lighting is faulty.

I therefore respectfully submit to your lordship that the Board of Trade, having undertaken the examination of the gas, no corporate official is required for that purpose.

That a private office for the detection of incorrect gas meters, &c., having been opened in Dublin, sufficiently proves the distrust with which the system of verifying gas meters is looked upon by the gas consumers, and that the sooner it is either reformed or abolished the better.

If your lordship and the Corporation would discontinue the present system of the inspection of public lighting, and appoint at salaries of £75 each per annum, two inspectors, one for the north, and the other for the south division of the city, whose duties would be to see that the lanterns were kept clean, &c., correctly lighted, and extinguished, and that there were no leakages at the metered lamps, I am certain that the work would not only be better done than it is at present, but that also a great saving to the ratepayers would be effected.—I have the honour to be, my lord mayor, your lordship's obedient servant,

JAMES KIRBY.

To the Right Hon. Maurice Brooks, M.P.,  
Lord Mayor of the City of Dublin.

41 Cuffe-street, 25th Nov., 1874.

SIR,—Enclosed I send you copies of three letters written by me towards the end of August, and published in three of our newspapers, on the subject of the unequal lighting of the public lamps to the loss of the ratepayers of the city. Amongst the illuminating displays visible at night during the periods referred to in them, there could have been seen on the western side of one of our best streets, separated by one dull lamp, two of those metered lamps, giving out the usual extra light, and consuming at least double the bulk of gas that was burnt in any other lamp in the same street. As if in contempt of the laws of both God and man, one of those lamps was opposite a church, and the other was opposite the house of an ex lord mayor.

Immediately after the publication of the first of these letters, the burners in some of the metered lamps were changed for others consuming less gas, and after some time the bulk of gas consumed in about two-thirds of all the public lamps was equally increased, but at present many of the lamps remain, I believe, in the same condition as I then described. I enclose a description of the lighting in one group of eight streets, alleys, &c., convenient to your office, in which on last night I saw eighteen\* inferior lights, and two metered lamps, emitting legitimate light. Where equal lighting exists, an escape of gas was permitted from some of the metered lamps. The gas leaking underneath lantern No. 90, in Grafton-street, was fired on the evening of the 12th inst., and remained burning for some time, consuming at the rate of at least 100 cubic feet of gas per hour, independent of the light inside the lantern, which continued burning separate and steadily on both of the occasions I observed it.

Holding the belief that it is the duty of the establishment under your control to watch closely and restrain errors of such character, I respectfully beg to bring this matter under your notice, in the hope that you will institute an inquiry into it, and in checking it, the information obtained may materially assist the ratepayers in opposing before the Local Government Auditor, at his next audit of the Corporation accounts, all surcharges for gas consumed in the public lamps that may be attempted to be inflicted on them.

The close connection existing between the Corporation and the Gas Company prohibits me from committing the folly of directing the attention of the Corporation to such a matter, and I respectfully apprise you of my intention of publishing this letter.—I have the honour to be, sir, your obedient servant,

JAMES KIRBY.

To Colonel Lake, C.B., Chief Commissioner  
of the Dublin Metropolitan Police.

Metropolitan Police Office,  
Dublin Castle, 26th Nov., 1874.

SIR,—I am directed by the Chief Commissioner of Police to acknowledge the receipt of your letter of 25th inst., relative to the public lamps, and, in reply, to state that the matter is one altogether under the control of the Municipal authority.—I am, sir, your obedient servant,

F. M. HINDS, Secretary.

To James Kirby, Esq., 41 Cuffe-street.

\* "If the light given out from, or the gas consumed in these eighteen unmetered lamps was measured, I firmly believe that they would be found to be about two-thirds deficient of what they should be, and charged for in excess two-thirds more than the gas consumed in them would authorise."



## CORRESPONDENCE.

## "THE APPELLATION 'LADY.'"

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I have read with much interest the paper in your last, "The Alphabet—Writing: its Origin and Progress," also the addenda note under the heading given above. As well as I remember, the origin of the disputes on this subject occurred thus:—The author of "Innocents Abroad" being called upon (while in London) to return thanks for the ladies at a public dinner, expressed himself nearly in the following terms:—"Ladies and gentlemen, I am asked to return thanks on behalf of the ladies, and yet my acquaintance with that history which should be our guide, and which we all acknowledge as Divine truth, teaches me the term 'lady' has no existence. I have searched from Genesis to Revelations, and no such designation is found in the entire of Scripture. I will, therefore, return thanks for the women." The author of the paper "The Alphabet," &c., in his note on the word "woman," adverted to Sarai and Sara, meaning "my lady" and "lady," ought in addition to have given the appellation "lady" as thus mentioned in 2nd epistle of St. John, ver. 1:—"The ancient to the lady elect and her children whom I love in the truth; and not I only, but also all they that have known the truth;" and in ver. 5, same epistle, "And now I beseech thee, lady, not as writing a new commandment to thee, but that we have had from the beginning, that we love one another." I trust your contributor will excuse me in calling his attention to the omission; but knowing that writing for periodic literature must necessarily be hurried, I must say it is difficult to avoid an occasional omission. As a further excuse, I am bound to inform him I am altogether indebted to a lady for calling my attention to the subject. If you will kindly insert this, you will much oblige

A SUBSCRIBER.

## THE RESTORATION OF KILDARE CATHEDRAL.

THE plans and specifications for the proposed alterations and "restoration" of the Cathedral of Kildare, have been laid before the Restoration Committee, from the eminent architect, Mr. Street. They have been approved of, and a resolution passed that Dr. Chaplin should communicate with them that the work should be advertised. The committee then went into the accounts, which showed they had nearly £3,000 in hands to commence with, including the munificent offer of the late Duke of Leinster to make good one of the transepts at his own expense, which has been ratified by the present Duke. It is to be hoped that the work will be proceeded with without any unnecessary delay.

## DEATH.

On the 30th November, Mary Ellen, youngest daughter of Mr. Michael Nicholson, Civil Engineer, 28 Arnot-street. Funeral at 9.30 on Wednesday morning. R.I.P.

## TO CORRESPONDENTS.

THE BUILDING ACT FOR DUBLIN.—Our attention has often been called to the want of a Building Act for Dublin. We have on several occasions touched upon the subject, and will probably in our next issue have something more to say upon this urgent matter.

CITIZEN.—There will be little change, if any, in the state of matters for another year. We have no sympathy with sham contests, parliamentary or municipal, and we have reason to believe they begin and end in corruption. They are not, however, always the work of outsiders, but are managed by insiders as a blind. Take the hint, and be wide awake on the next opportunity.

AN ARTIZAN.—Early in the new year, perhaps, an article on the subject of "Lines" will appear in this journal.

ARCHITECT (London).—We are not inspired by any body over the Channel on the subject named. Our pages are open to you and to others who may desire to further ventilate the subject, free from all personal animus.

Some articles intended for this issue we are obliged to hold over.

EPH'S COCOA.—GRATEFUL AND COMFORTING.—The agreeable character of this preparation has rendered it a general favorite. Made simply with boiling water or milk. Each packet is labelled JAMES EPPS & Co., Homoeopathic Chemists, 48, Threadneedle-street, and 170, Piccadilly. Works for Dietetic Preparations, Euston-road and Camden Town, London.

## NOTICE.

It is to be distinctly understood that although we give place to letters of correspondents, we do not subscribe editorially to the opinions or statements set forth in same.

Correspondents should send their names and addresses, not necessarily for publication.

We shall be glad to receive from any of our readers notes of works in contemplation or in progress.

Post Office Orders and Cheques should be made payable to Mr. PETER ROE, 42, Mabbot-street, Dublin.

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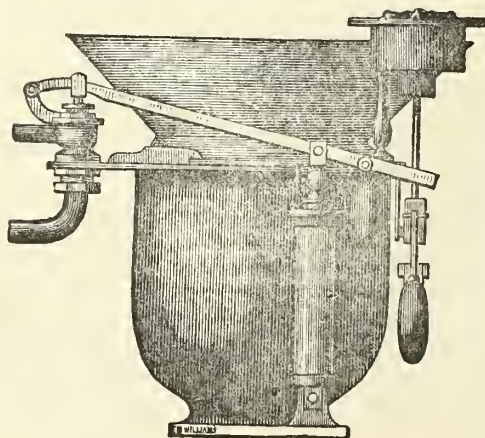
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# The Irish Builder.

VOL. XVI.—No. 360.

## Pioneer Efforts in Public Improvement.



NE of the failings, or rather faults, of mankind in the present age is the proneness to forget or to acknowledge our indebtedness to those who have preceded us. Pioneer efforts are generally forgotten, whether they relate to the nucleus of a great invention, or the suggestion or plan for a proposed public improvement. The hint is often availed of by those who are incapable of the thought, though they may by capital or influence succeed in giving it a practical embodiment. To be sure we are often told the time is not ripe for such-and-such an innovation or experiment; but as soon as the pioneer rests in his grave, or is got rid of by other means from claiming a share in his proposal, those who are indebted to him will proceed to take credit to themselves, conscious betimes that they are perpetrating an act of base injustice. Many a case occurs to our mind in this and the sister kingdom, and particularly in the modern struggle for Sanitary Reform. The labourers and true pioneers of sanitary science and public health have lately been ignored by a class of men who, for long years, rendered no aid, but rather threw obstacles in the way; but who, when they found out at the eleventh hour the movement could be made a milch cow of, gathered round the standard, and shouted lustily for its elevation.

In our last and the preceding issues we furnished our readers with some notes respecting the sanitary condition of spots in Dublin, and the suggestions made towards their improvement. We pointed out that some of the hints and recommendations of Mr. Hely Dutton were subsequently adopted, and others are in process of adoption, though upwards of seventy years have elapsed since they were printed. Not only did our Dublin author describe the state of our streets, roads, and bridges, but he also described the state of our labourers' dwellings, the value of drainage, sewerage, and irrigation. Considering the period at which he wrote, his "Observations" in an agricultural and a manufacturing direction were excellent; and his sanitary hints in the matter of the city and suburbs could not fail in leading to improvement.

The great fault of the "Surveys" published in the last century was the indiscriminate praise bestowed by their authors in respect to persons and matters that did not deserve it. Mr. Archer, in his "Statistical Survey of the County Dublin," is lavish in praise of numerous gentlemen's seats and plantations in the county. Their mansions—good, bad, and indifferent—were nearly all described as neat or magnificent, and the whole surroundings came in for similar praise. The "Post Chaise Companion" or Travelling Directories of the period were also lavish in praise of second, third, and fourth-rate seats and

estates. To be a Councillor or Honourable this or Sir that was sufficient to command an ornate notice; but it was for mansions of the nobility, the lords, earls, dukes, and marquises the effulgent eulogy was reserved.

Mr. Dutton, in his "Observations" on Mr. Archer's book, enumerates a number of seats that in no way deserved the high encomiums bestowed on them; and the places that Mr. Dutton did praise, he took opportunity of pointing out further improvements that might be effected therein. We will instance one or two well-known seats near to the city, concerning which Mr. Dutton pointed out some improvements in 1802.

Speaking of Clontarf Castle—still in the hands of the same respected family—our author wrote:—"Clontarf Castle is a very fine antique, and kept in high preservation by Mr. Vernon. An attempt was lately made to give it an elevation by taking away some of the earth in front; to make this either ornamental or useful, it should have originated at a considerable distance in Clontarf town, so as to have made it an inclined plane from the hall door; this could be easily effected, and would make Clontarf Castle one of the finest objects of the kind in the county. It would also materially serve the inhabitants of Clontarf town, as their houses are very much sunk, owing, I suppose, to injudicious road-making. If Mr. Vernon should ever be inclined to adopt this hint, it is hoped he will remove the dwarf battlements in front."

Several years later in the century Clontarf Castle was remodelled by William Vitruvius Morrison, the gifted son of the late Sir Richard Morrison, architect. Clontarf Castle now presents a union of the Tudor and Castle styles of architecture, and its surroundings show more improvements than were anticipated by Mr. Dutton, though the "inclined plane" is not continued from the hall door down near to the town.

Respecting Marino, the seat of the Earl of Charlemont, Mr. Dutton thus writes:—"Marino, the seat of the Earl of Charlemont, was highly improved by the late Earl [of Volunteer memory]. From its contiguity to the city, and the great facility of viewing it, a description would be superfluous. It is in contemplation, I understand, to make a new entrance, which has been long wished for. This demense has suffered severely from an ill-judged speculation in building a crescent of houses [Marino Crescent] that possess every inconvenience of a city residence, without any retirement or pleasures of the country. It will scarcely be believed that, at the distance of two miles from the city there are houses without either gardens or good water. Some attempt at improvement has been lately made by throwing the road farther from the houses, and giving a small space for gardens in front. If all the divisions between these insignificant gardens were removed and thrown into one lawn neatly mowed, dotted with a few hollies or other evergreens, and a skirting of evergreens along the paling next the road, I imagine it would have a more rural appearance than the present tasteless patches, and if only one entrance, and more in the centre was made, it would make it more retired; at present it is a thoroughfare very disagreeable to the inhabitants."

"Coming events cast their shadows before." Upwards of twenty years since, the road in front of Marino Crescent was

further removed from the houses, and the gardens thus enlarged. The field in front was also converted into a small park or public garden for the use of the inhabitants. About the year 1842, and for some time after, the houses were nearly all tenantless and out of repair. They were then compeed on the outside as we now see them, and the outside improvements spoken of effected. Since that period the houses let tolerably well.

As to the origin of building Marino Crescent, the story goes that they were built by some Quaker whom Lord Charlemont offended, in order to spite his lordship, and to partly hide his view of the sea.

Since the death of Lord Charlemont of '82 memory, Marino has not witnessed much building improvements. There are two gate entrances on the Donnycarney-road. The one at Fairview, we believe, was added in the present century by the late earl. The town residence of the late earl and that of his celebrated father in Rutland-square, who built it and partly designed it, is now the office of the Registrar-General; but it will probably, while it exists, be still known as Charlemont House.

Among the noted seats that come in for encomiums from Mr. Dutton in the neighbourhood of the city, and respecting which he suggested improvements, some of which were subsequently carried out, were: Belcamp, the seat of the Hon. Francis Hutchinson, a member of the Irish Parliament; Killester, the seat of Sir William Glendon Newcomen, of banking memory on Cork-hill, and after whom Newcomen Bridge was called; Abbeville, the seat of the Right Hon. John Beresford, an equally well-known public character; Woodlands (formerly Luttrell's-town), the seat of Luke White, the once famous and wealthy bookseller of Dame-street; the Viceregal Lodge, Phoenix Park; Holly Park, the seat of Jeffrey Foot; Marlay, the seat of Mr. La Touche; and some other less noted seats.

Blackrock in 1802 bore very little resemblance to the Blackrock of to-day. It was a stirring place, but the population was small, except when crowded by visitors from Dublin. In the year mentioned there was but a scanty supply of fresh water; a fountain was suggested to be put up where a pump formerly stood, but of which only the open pump-hole remained—"a most dangerous and reproachful nuisance." The paving of the streets of the Rock was also suggested, and measures were advised to prevent the inhabitants from throwing dirt on the roads and footpaths. The carriage stand in the principal street then was described as "another great nuisance," and its removal to a waste piece of ground near hand was recommended.

The situation of Montpelier-parade was described as unrivalled in point of situation and prospect. Mr. Dutton thinks "it is astonishing that citizens would prefer the noise and dust of the Rock to a situation like this, that unites the retirement of the country, without any of its disadvantages." Speaking of the houses of Montpelier-parade, which was a building speculation in Mr. Dutton's time, our author goes on to say:—"A few of the houses, I perceive, remain still unset; but when the citizens reflect on the superior advantages they enjoy, and the rapid rise that is likely to take place in rents of this neighbourhood, I am convinced that



Mr. Greene, the spirited proprietor, will be amply remunerated, and the tenants sufficiently recompensed for any money they may expend."

In subsequent years the houses on Montpelier-hill let well; and from the period of the opening of the Dublin and Kingstown Railway, Montpelier and the rest of Blackrock and Monkstown improved wonderfully. The modern township, like the ancient hamlet, is still susceptible of much improvement.

The Blackrock-road and the Donnybrook-road came in for severe strictures from Mr. Dutton, from the bad way in which they were kept, and the clumsy method of repairing they were subjected to. Several of the badly-kept roads in the county and near the suburbs are noticed, and some useful hints given for their proper repair, which might be followed with advantage at present.

There is a novel suggestion made by our author for obviating the expense of employing men to pick the road. He advises that they should be *ploughed, harrowed, and rolled*. Of course he meant the roads outside the city. We reproduce his remarks upon this head:—"From the result of an experiment I tried at Sir Thomas Lighton's, I do not entertain a doubt that every road in Ireland could be ploughed, harrowed, and rolled as easily as a garden walk; it is only proportioning the power to the resistance. When I was engaged at Merville Lodge [beyond Donnybrook, once the seat of Sir Thomas Lighton], amongst other improvements I changed the line of approach; during an absence, occasioned by an accident, I found the men had given an extraordinary rise in the middle (I suppose to make it *strong*), where it was eighteen inches deep, of a very large and very hard gravel; it had been used for some time by very heavy carriages, and was extremely firm, inasmuch that labourers with pickaxes performed very little work in a day. I suggested the practicability of ploughing it; and as Sir Thomas is ever ready to try experiments with great spirit, he agreed. It was accomplished in a short time by a common plough (although a most wretched one for the purpose) and four weak mules, with the assistance of a man to hold down the beam of the plough; this is the strongest proof that can be adduced of its practicability, for if it had been tried with four steady bullocks and a suitable plough it could have been accomplished with the greatest ease, for the mules were so unsteady that frequently when the plough met any resistance two of the mules would give back, and two plunge forward—a circumstance well known to those who use unsteady horses, but trained bullocks stick to the draft without giving back. After being ploughed, it was harrowed, the large stones picked off, levelled, and well rolled by a heavy metal roller. I am convinced nothing would contribute more to the goodness of our roads than frequent rolling with a heavy roller."

As much as we may doubt the value of Mr. Dutton's advice concerning road ploughing, his opinion about rolling is not amiss. With the aid of steam, a road plough and roller might be used in these days on county roads, but a system of revolving picks with a heavy roller following, would be much preferable on county roads. For city street purposes, we have now granite cubes, asphalt, and concrete combined with good shingle—three modes of road making which

are an improvement on the old methods, but which still are open to improvement in the manipulation. A good macadamised road is still a durable one, if properly attended to.

Mr. Dutton also made some pertinent observations on the habitations, fuel, food, and clothing of the working classes in his day, but we have not space to enter at length in review of this part of his subject. He states that "nothing can be a greater reproach to the landed proprietors than the wretched appearance of labourers' cottages; covetousness, want of spirit, or carelessness, are the general causes. If a landlord builds a miserable hut which costs him only £10, he charges at least 40s. per annum; some, as Mr. Archer says, the enormous rent of £3 or £4." With a few exceptions, as it was in 1802, it is so still. The hovels of our agricultural labourers are a disgrace to the properties upon which they are situated. One or two instances are given by Mr. Dutton of efforts made to improve the housings of the labourers' cottages. "Sir Thomas Lighton has set an example near his house on Merrion-road, adjoining Mr. Frank's lawn, by the erection of a range of cottages; they are at once comfortable to the tenants, and highly ornamental to the neighbourhood." We are not told of what material they are built, and a foot note is added by our author to the following effect:—"The tenants by no means second his view, as the road before their doors is generally in a very filthy state, and the doors and windows very dirty." We suppose there was an absence of all drainage, as was usual in these days. We are told that "Mr. Jackson, of Clonskeagh, has also erected very comfortable cottages for his workmen. Some few others may be seen, but they are in general as I have stated. Want of elevation above the damp earth seems to be the great error in the best constructed, as there is scarcely one but has a step down into it; this glaring and, I must add, cruel defect is in general to be seen in gentlemen's entrance lodges." The condition of the agricultural labourers in 1802, as described by Mr. Dutton, was indeed wretched, and with wretched surroundings. Our author's observations we have no doubt led to some subsequent improvements in the County Dublin.

We have already furnished some notes in respect to our markets, and their condition seventy years since. We may add that our author severely comments upon the evils and abuses of Smithfield Market in his time, and suggests a remedy for this flagrant abuse. Mr. Dutton was also an advocate for the abolition of Donnybrook Fair, concerning which he writes:—"The scenes of riot and drunkenness that take place are most disgusting, and can surely answer no purpose but to put money in the pockets of publicans, at the expense of the morals and health of the people. I sincerely hope to see it abolished before the next meeting, and a compensation made to the proprietor of the tolls, which could be easily adjusted." Upwards of half a century elapsed before Mr. Dutton's hope was realised, as Donnybrook Fair was not abolished till the year 1854.

We might carry on the subject further, but from what we have reviewed here, and in the preceding issues, it will be seen how much we are indebted to the pioneer efforts of men who are long in their graves, and are strangely forgotten.

## THE ROYAL IRISH ACADEMY.

The Academy met last evening at 19 Dawson-street.

DR. STOKES (President) in the chair.

Samuel Ferguson, Esq., LL.D., read a paper "On further Ogham Texts from Monastagart, Co. Cork, including an account, by the Rev. John Quarry, D.D., of the locality and circumstances of the discovery of the several Ogham Inscribed Stones there found."

Two further Ogham-inscribed pillars had been discovered in the same cist from which the *Fequereq* stone had been extracted. The inscription represented by the Ogham characters on the smaller stone was "*Dalagni Magi Dali*." In the inscription found at Kinard, West Dingle, the form Talagni was found, and if Dali were taken as a proper name, the same convertibility of T and D would identify it with Tal, the form in which it was recognised in MacTail. The second inscription was "*Broininas oinetat-trenalugos*." The portion preceding the cross was plainly the same proper name found in the form of Broinionas on the Lough Monument, near Dingle. Whether the name was significant, and whether it did not illustrate what he had said elsewhere as to the names of humiliation among early Christian ascetics, he must submit to the judgment of those better qualified; but, whatever its meaning might be, it exhibited a form of termination which might be compared with other endings in *as* found at Dunbel, Ardmore, and lately in Carnarthenshire.

Mr. William Archer read a paper "On some new forms of Scytonemaceæ."

Mr. C. R. C. Tichborne, Ph.D., read a note "On the Solution of Alloys in Acids." He pointed out that the facilitation of the solution, by the introduction of platinum, would be very much increased by using platinum in the form of small shot, instead of in the form of foil. The foil would rise to the surface of the acid to discharge the hydrogen with which it became charged on touching the alloy, but when platinum globules were used the hydrogen was much more rapidly eliminated and the platinum did not float.

The same gentleman also read a paper "On the Printing Inks of the Sixteenth and Seventeenth Centuries." He had accidentally found that the printing inks of those days were extremely sensitive to the action of alkalies, though they might withstand powerful bleachers. He noticed this peculiarity first when endeavouring to remove stains from a page of the "Portraiture of his Sacred Majesty," published in England in 1648; but he afterwards found that in books and engravings printed in other countries, also during that and the preceding century, the slightest touch of a weak solution of ammonia had the effect of completely obliterating the print.

The Secretary (for G. R. Leeper, Esq.) read a paper "On Retroperitoneal Cavities in Man."

Mr. J. R. Garstin (Treasurer) exhibited an impression of an old bronze mould found at Lough Fea, county Monaghan, and sent to him by Mr. E. P. Shirley. It was cut with figures of classical type, and it was suggested that it might have been used for ornamenting leather book-covers.

Professor Stewart, M.A., Dr. Reuben Harvey, and Mr. M. J. Purcell, were elected members of the Academy.

## SANITARY STATE OF BRAY.

At a meeting of the commissioners of Bray township yesterday, a letter was read from Dr. Whistler, through the L.G.B., stating that 85 per cent. of the houses in the district required immediate inspection. Several members thought the statement rather exaggerated, at the same time acknowledging that the condition of many of the tenements in the lower parts of the township was deplorable, and would be a disgrace to the cabins of the west of Ireland.



### DR. STOKES ON NATIONAL MONUMENTS.\*

WHEN considering the best practical method of furthering such aims as the archaeologist should place before him, the subject of the preservation of national monuments must not be passed over. You are aware that the provisions of the Irish Church Act have placed in the hands of the Church Commissioners the guardianship of all ecclesiastical structures which have fallen into disuse as places of worship and may be considered worthy of preservation as national monuments, and they have, in accordance with the provisions of the Act referred to, vested in the Board of Works such buildings as those at Cashel, Ardmore, Monasterboice, and elsewhere. Practically, the buildings on the Rock of Cashel, are the only ones where the work of preservation has actually commenced. There is serious cause of alarm that a misdirected zeal in carrying on the works of preservation and repair may be more productive of evil than of good. When such works are "restored," they are generally greatly destroyed. Dealing with any ancient work of art, the restorer can never equal the original artist in the spirit or the feeling of his work; and the softening touch of time, which brings the ruin into harmony with the scene around till it too seems, in its unobtrusive beauty, a part of nature itself, can never be replaced, though it may too easily be dispelled, by the hand of man. In striving to impress this subject upon you, it is with the hope that you will feel with me that, as a body, we should unite in expressing our opinion that such monuments cannot be satisfactorily dealt with unless all works carried on in connexion with them be under the superintendence of some one or more persons endowed with special archaeological knowledge, sufficient to render them competent for the duty of not only furthering and directing the works but also of restraining the workmen who should be employed to put such buildings in repair, or else that the architect should religiously confine himself to the most unobtrusive method of mere preservation—keeping them in their present condition.

It is desirable that we should, for a few moments, look beyond the limits of this Academy and this country, and consider the labours of others engaged in the same studies abroad, so that our energies may be quickened by a noble emulation, and, as iron sharpeneth iron, so we and our brethren elsewhere may derive help from one another in their onward path. The present is a time of extraordinary energy in exploration and discovery abroad. The ore thus industriously gathered must, when passed through the crucible of wise and philosophic minds, yield pure metal, and will with certainty place the study of comparative archaeology upon a surer basis. In Rome, the excavations carried on in past years, and still in progress, are of indescribable interest to the antiquary. The Forum Romanum, and many monuments of Imperial Rome, have been excavated, and most important results have accrued from the same works carried on within the area of the Coliseum, while, in the process of the erection of the new city, innumerable objects of art have been discovered, portions of statues, mosaic pavements, fresco paintings, which are being all carefully preserved and put together, and it is proposed to have local museums in each district, in which the principal objects may be exhibited.

Again, at Ephesus, the works of excavation carried on by Mr. Wood, at the site of the Temple of the Ephesian Diana, reveal to us the characteristics of a school of Hellenic art which arose in Asiatic Greece when Athenian artists sought refuge and employment there after the period when Athens still suffered from the effects of the Peloponnesian war, for it is now well known that

the rebuilding of the Temple of the Ephesian Diana was contemporaneous with Scopas and Praxiteles, one of whom, if not both, indeed, contributed to its sculptural decorations. The noble fragments which have reached this country, and now stand in the British Museum, show that the spirit of Hellenic art still lived to give witness of its noble origin.

To go still further back in the history of art, the results of French and English enterprise, the labours of such men as Lenormant and Fouqué, Charles Newton, and General Cesnola, and Lang, in the Levant and all along the west coast of Asia Minor, have added immeasurably to our knowledge of Greek art, which before was but limited. Of the works of the Samian school, described by Pliny and dating four centuries before Christ, nothing was known until the discoveries on the Levant, while the Greek sculptures from the west coast of Asia Minor, now in the British Museum, or the objects in the Castellani collection, show by such examples as the statue of Demeter, from Cnidos, or the bronze head from Thes-saly, held by some to represent Aphrodite, by others, Artemis, teach us in their noble spirituality of expression to feel more vividly than we have ever felt before to what a high ideal of pure womanhood had Greek art attained long centuries before a Raphael or a Leonardo lived.

And, passing further back still, from the period of Hellenic to pre-Hellenic art, the discoveries of M. Schliemann, at Hissarlik, are of a value to archaeologists, the amount of which it is impossible now to estimate—and this is true, in whatever way the vexed question may hereafter be decided as to whether the Ilium Novum, on the site of which these discoveries have been made, was indeed on the same site as the Homeric Troy. This involves questions as to how far history can be deduced from mythology; how far Homer, as a poet, may be accepted as a historian; how near the time of the siege of Troy Homer lived. But the objects themselves, thousands in number, photographs of which are now in our library, bear evidence in themselves that they belong to a period in art which is not only non-Hellenic, but pre-Hellenic, and to use the words of Mr. Newton, they appear to be "of that remote antiquity which we, vaguely groping in the twilight of an uncertain past, call pre-historic."

These objects, found in a stratum of red ashes and calcined runs at the depth of from 23 ft. to 33 ft., consist of pottery, spearheads, said to be of copper, terra-cotta figures and ornamented discs or beads, and ornaments in gold and silver. The pottery is wrought and polished by the hand, to a lustrous surface, and ornamented with incised patterns, while Greek pottery is painted or varnished. There are no weapons of wrought bronze, such as those of the Greeks; there is no intelligible writing, with one doubtful exception, and, to quote from Mr. Newton, "while there is an attempt to model a face, whether human or owl, the conception of the human form as an organic whole, a conception which we meet with at the very dawn of Greek art, nowhere appears;" nor, the same writer adds, "can I detect, as in archaic Greek art, any trace of Oriental or Egyptian influence in any of the ornaments or devices."

On the other hand, the pottery does resemble that found in Rhodes, Cyprus, Santorin, and Etruria, such as may be fairly held to be pre-historic, examples of which in Latium and Santorin were found under layers of lava, from volcanoes long since extinct; and there is a resemblance between the ornaments and certain bronze objects found at Halstadt, in Upper Austria, while they are unlike any of the ornaments of Greek art, which is embossed and chased, and sometimes decorated with what is called granulated work, i.e., grains of gold, separately soldered on to the ornament.

They are ruder than any of the ornaments of Greek, or Phœnician, or Assyrian, or Egyptian time. But we should not be justified in forming conclusions as to their great

antiquity merely from their rudeness. There is the rudeness of archaic art and there is the rudeness of barbaric art, which latter may belong to any time; and so with the self-restraint and patient spirit of investigation which belong to the true archaeologist, Mr. Newton remarks, "We must not rely at present on any such arguments as those derived from their character, or even from their affinity to those remains whose antiquity seems so much more fully established;" and he points out as our further duty to push forward investigations elsewhere, till we have the means of comparing these Schliemann antiquities with some of those collections of pre-historic and barbarous remains which have, in recent years, been so diligently formed and intelligently classified in continental museums.

And here I would remind you that, in the pre-historic, or at all events in the un-historic, antiquities of Ireland, preserved in the museum of this Academy, in the great collection of pottery, in the ornamental discs, or so-called spindle whorls, and in the gold and silver ornaments, of which we have so large a number, resemblance may or may not occur with these in this Schliemann collection, the absence or presence of which would, either way, be an important fact to establish.

### THE IRON TRADE.

THE utilization of iron of late years in building construction, has led to a great interest being manifested in its production and cost. Mr. Septimus Ledward is again directing attention to foreign competition. The Belgian iron masters, it would seem, are working hard to take possession of the London market, as far as regards certain descriptions of rolled iron, the consumption of which is increasing in Great Britain. Since 1864, the export trade for Belgium has gone on increasing, and it behoves British manufacturers to study well their position, and in co-operation with their skilled workmen prevent the results that may eventuate. If England is beaten upon its own soil in the matter of iron manufacture, other branches of trade will assuredly be taken up by foreign capitalists, and the manufacturing supremacy long maintained by Great Britain may become a thing of the past.

### MAIN DRAINAGE AND LIFFEY PURIFICATION.

IN reply to a memorial presented yesterday by a deputation from the Citizens' Committee to the Lord Lieutenant, his Grace stated that he understood "it is probable that a private bill will be introduced next session for transferring from the existing body those powers for main drainage purposes which Parliament has conferred upon them as representatives of the ratepayers. It will be for Parliament to decide upon this proposal; but he was still reluctant to suppose that those to whom this great and necessary work has been committed will, when satisfied that it can be executed without entailing too great a burden of taxation, any longer delay its commencement. Any help that Government can fairly render will be at their disposal; and not only the proposals which have been laid before him, but any others which may be made upon that subject, will be considered by the Government, with a strong sense of the necessity of securing for Dublin those benefits from a proper system of drainage which London already enjoys."

### THE QUEEN'S INSTITUTE.

WE are informed that the fourth annual exhibition of works of Art and Art Industries of the Queen's Institute will be opened at noon tomorrow by his Grace the Lord Lieutenant and the Duchess of Abercorn.

\* From inaugural address delivered before the Royal Irish Academy.



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## WATER.

## NINETEENTH ARTICLE.

It was the poet Pindar, the prince of lyric poets, who flourished in the fifth century, B.C., who said that water was the best gift of Heaven. Next unto life, indeed, it is a part of our existence, for there could be no living without water. That it may be of value for the preservation of the health and life of mankind, it needs to be pure. Whether for drinking or domestic purposes, such as cooking, or for medicinal ones, the same necessity exists for its purity. With the growth of towns and cities, and the increase of population in modern times, the water used by the majority of persons has been far from that of requisite purity for the purpose of human health. Rivers and their tributaries in modern times, and down to the present hour have been and are being fouled through absence of drainage or through defective drainage, for where no artificial drainage exists, the foul liquids will naturally percolate through the soil to some outlet, which will be generally found to be a well, a pump hole, or a stream used for drinking purposes.

The chemistry of water, which includes its components, and in view of sanitary laws and health, the tests necessary for its analysis is a rather wide subject to dilate upon, but withal it is a most important one. We will confine our observations to the most prominent and pertinent portion of the subject. Nature presents us water in three forms—solid, liquid, and gaseous. As ice it is a solid, and large bodies exist around the poles, and the seas hold in solution certain mineral and gaseous matters as do our rivers and lakes. Water also exists in large quantities in the air, either dissolved in invisible vapour, or in the form of clouds. In all climates—temperate or warm—the surface of the earth is more or less damp, and in the interior of the earth we have numerous springs. Water is essential to all vegetation and animals in a living condition; and it is stated upon authority, that it constitutes nearly seven-eighths of the human body. It must be seen, therefore, at a glance, what value it is to nature and human nature. Water consists of hydrogen and oxygen, united in equal equivalents by weight of eight parts of oxygen to one of hydrogen, or by measure, one part of oxygen to one of hydrogen. Water was long centuries ago supposed to be an element, until Cavendish separated it into its constituent gases. He was the first to discover its real composition. The analysis of water is performed in a variety of ways. A gallon of water weighs about 70,000 grains, and 70 cubic centimetres of water weigh 70,000 milligrammes. Well-known drinking waters in the sister kingdom and here contain a variable amount of total solids. The London Thames Company's contains 18.5 grains of solids to the gallon; the London New River, 17.6; the London Kent Company, 26.5; Manchester Water Supply, 4.7; Glasgow, Loch Katrine water, 2.3; Scarborough Reservoir, 28.7; Bala Lake, 3.2; Guilford New Supply, 19.7; the Spee at Berlin, 8.0; the Rhine at Basle, 11.8; and distilled water, 0.1. The solid residue appears, as a rule, to be made up of mineral water; in the London and Guilford water it is mainly carbonate of lime.

In Mr. Ernest Hart's "Manual of Public Health" it is stated further in respect to these waters—"There is no reason for believing that, if these waters contained less carbonate of lime, they would be any better adapted to drinking; possibly even the presence of the carbonate of lime may be advantageous, as affording an available supply of lime to the animal economy. Be it so or not, it is an incontestable fact that the natural water charged with lime is usually less contaminated with organic matter than those waters which contain very little mineral matter."

From the above list of waters it will be

seen that the Kent Company and the Guilford supply are nearly as free from organic nitrogenous matter as carefully distilled water, whilst the water from Bala Lake and Loch Katrine appear to be less pure (organically speaking) varieties of drinking water. On the same authority as that quoted, it is stated that our present state of knowledge does not warrant the raising of any objection to a water intended for domestic use, on the score of its containing 30 or even 40 grains of solid residue per gallon.

The Vartry Water which supplies Dublin contains, according to Professor Cameron's analysis, 4½ grains of solids per gallon, of which 2½ grains consist of substances volatilizable at red heat. Its albuminoid nitrogen is sometimes as low as 0.002 grains per gallon, and its ammonia is stated to seldom exceed 0.001 grains per gallon. It also occasionally contains minute traces of nitrogen and nitric acid, the products of the oxidation of vegetable matter. The Vartry water is considered pure and wholesome; and, after performing a great many experiments with it, Professor Cameron came to the conclusion that the use of it for detergent and cooking purposes effects a considerable saving in the expenditure of the Dublin public for clothes, soap, and food. He also considers that "a bath in this extremely soft liquid is an enviable luxury." We wish that many of our fellow citizens, poor or rich, availed themselves more often of its benefits in this direction.

The waters of the Dublin wells are, with few exceptions, extremely hard, and contain enormous amounts of gypsum, chalk, and the chlorides of calcium and magnesium; but of Dublin wells and pumps more particularly hereafter.

The water of the sea contains from 3 to 4 per cent. of mineral matter, and it is, of course, not drinkable, nor would it be if it contained much less solids. The effects of drinking sea water in cases of shipwreck is, no doubt, known to many. Very high solid residue in river, well, or pump water may be taken as a proof that there is a sewage or some other contamination occasioned, perhaps, by the waste substances of manufactures or tidal influence. On the other hand it may be that the spring well, with a very high solid residue, is a mineral water, though it may be actual sewage or diluted sewage in the form of surface water.

In addition to the solids in waters there are always gases present. Those of the Thames are said to contain from 52.7 cubic centimetres to 71.25 cubic centimetres per litre. The greater portion consists of carbonic acid, and the remainder nitrogen and oxygen in varying proportions. Good and bad water is liable to have dissolved nitrogen gas greatly preponderating over the oxygen. The gases in the Thames water amount when weighed, to about 10 grains per gallon; and it is stated that the gaseous contents of a soft water are, at least, equal in amount to the solids. Water that contains a very small proportion of solids may be taken as a soft water, but if it contains above 16 grains of solids to the gallon, the water is certain to be hard.

The following remarks upon hardness in water is taken from the Manual already alluded to:—"It is rarely, if ever, that the medical officer will be required to make a complete analysis of the 'solid residue' left by a water, provided that the solids do not much exceed 20 or 30 grains per gallon; it is not of importance whether the proportion of lime to magnesia be great or small, or what may be the exact ratio between the lime and alkalis."

These points, it is stated, may have an interest for the geologist, and sometimes for the manufacturer, but none for the sanitarian. It is apparent, at the same time, that an analysis is necessary, and, if undertaken by or on behalf of a medical officer of health, in the interest of the community, we think the analysis should be complete, that it may be satisfactory to all. Water, when hard, has, from time immemorial, been boiled by our

people, that it might be rendered soft for domestic purposes; and water suspected or known to be impure has been boiled also, with the belief that it was rendered more safe to drink. When carbonate of lime is held in solution by carbonic acid, it is deposited in boiling water. As to chlorides in drinking water, the presence of a trace of chlorine affords a reason for believing there is sewage contamination. Both urine and sewage, or sewage-contaminated water, contain chlorides, but uncontaminated water is mostly devoid of chlorides. Contiguity to the sea, or a certain geological formation in a district, may produce chlorides in water. It is laid down, nearly as a maxim, that no specimen of water that is devoid of chlorine can be affected by sewage contamination. Very good tests exist for finding the amount of chlorides in drinking water. As to nitrates in drinking water, there appears to be some difficulty in arriving at a general rule of determination. A specimen of water may contain nitrates, and it may owe their presence to sewage contamination; and it is held, that a specimen of water may be rich in nitrates and be very pure, or very contaminated; on the other hand, a specimen of water may be poor in nitrates and be pure or foul. It is, therefore, advised at present that the medical officer should avoid making determinations of nitrates in drinking water. This, we think, cannot be a satisfactory state. The nitrogenous matter of sewage is to a great extent converted into nitrates, and aquatic vegetation will destroy nitrates, and the absence of nitrates may be due to a strong aquatic vegetation, as well as to the absence of sewage. Therefore, it is agreed that if a specimen of water be devoid of nitrates, the consequence by no means follows that sewage has been poured into it. Quite true; but it would be far better, we think, if we had more complete tests in regard to nitrates, and then there would be less danger of drawing conclusions as to the goodness of a drinking water from the circumstance of its being rich in nitrates, or *vice versa*.

All drinking water ought to possess a high degree of freedom from metallic impurity. There is danger in the use of lead, copper, zinc, arsenic, and barium; but of these metallic dangers, and of the organic matters in water, along with some points in connection, we will reserve for another paper.

AMERICAN RAILWAY CONSTRUCTION  
AND MANAGEMENT.

The following, from a paper read before the Institution of Civil Engineers, London, by Charles Douglas Fox and Francis Fox, M.M. Inst. C.E., will afford an insight into railway construction in America:—

The Pennsylvania railroad consisted of a main double line from Philadelphia to Pittsburgh—a distance of 354 miles—with nine branches of an aggregate length of 263 miles, or a total of 617 miles. The total length of single line, including sidings, was 1,226 miles; besides which the company leased or worked an additional length of 1,947 miles, chiefly single lines. The cost of the railroad, with stations and rolling stock, had been 33,806,000 dols., or about £10,000 per mile.

The earthworks of the main line were heavy in many parts; and the inclines carrying the railroad over the Alleghany Mountains, although the gradients were moderate in comparison with those on other passes, were amongst the most important of the kind in America. The gauge was 4 ft. 9 in. The width at formation level, on embankment, was 24 ft. 3 in., and in cuttings, in ordinary soil, 32 ft., and in rock, 28 ft. There were numerous bridges for carrying the railroad over streams. The Mount Union Bridge, of five spans of 121 ft. 6 in. each, had three main trusses with the railroad on the top. These trusses were constructed upon the stiffened triangular system. To support the



upper member and convey the strains more directly to the abutment, a short strut composed of two channel irons, with distast pieces, was inserted in the middle of each bay; the point of junction of this strut with the diagonal and the top flange being again tied to the adjoining vertical in the direction of the middle of the bridge. There were eight tunnels of the aggregate length of 2,646 yds., the longest being 1,204 yds. The permanent way or track on the main line was of unusual strength for an American railway. The standard section of rail now used weighed 67 lb. per yard, and was of steel,  $4\frac{1}{2}$  in. high, with a base 4 in. wide. There was no general system of signals, and even indicator signals were uncommon. The old form of sliding rail was almost universally adopted in lieu of the switch. The traffic was regulated by telegraph. The different classes of locomotives were designated by the first seven letters of the alphabet; but there were only three well-marked types, viz.: the eight-wheel, the ten-wheel, and the "shifter," or shunting engine. The greatest importance was attached to interchangeability of parts. An idea might be formed of the uniformity existing amongst the several types from the fact, that whilst 112 patterns were required for one engine, 187 included all the seven classes, exclusive of the tender, which was alike for all. The locomotives had leading trucks of the variety known as the "swing centre." The trucks had chilled cast-iron wheels. Steel wheels had been tried, but would not bear the severe work of guiding the locomotive over the sinuosities of the line. The weight of a cast-iron wheel of a passenger car was 525 lbs.; it cost about £4 sterling, and had a life of at least 100,000 miles. The metal was charcoal iron, having a tensile strength sometimes reaching 18 tons per square inch, and averaging nearly 15 tons per square inch. The driving wheels were of cast iron, with hollow spokes, counterbalanced with lead. They were fitted with steel tires, except for shunting engines, where chilled tires were more durable. The boilers were of soft crucible steel, the shell of the larger one being  $\frac{3}{4}$ -inch thick, and of the rest 5-16th inch thick. The fire-box was also of steel,  $\frac{1}{4}$ -inch thick, with the exception of the tube-plate, which was 7-16th inch thick. The passenger cars, including sleeping cars, compartment, vestibule, parlour, drawing-room, and "silver-palace" cars, all of which were the result of a pressing necessity for the invention of new superlatives of excellence, many of the public being too nice to travel simply first class, resembled those in general use on the best railroads of the States. The weight of an old-fashioned sleeping car was 20 tons, of a "palace car" 26 tons, giving in one case 17 cwt., and in the other 21 $\frac{1}{2}$  cwt. to each passenger. The cars were lighted by ordinary coal gas, compressed to about 300 lbs. per square in., in tanks under the body of the car. The Westinghouse pneumatic continuous break had been in general use for several years. The goods wagons or freight cars were of five kinds. The whole of the rolling stock was provided with combined central buffers and drawbars, and the trains generally were loosely coupled. On the Pittsburgh section of the line water troughs, similar to those on the London and North Western railway, were laid down to supply the locomotives when running at speed. By their use the express trains were enabled to run regularly from Altoona to Pittsburgh, a distance of 117 miles, without stopping, in four hours, at an average speed of nearly 30 miles an hour.

Leaving out of consideration some unimportant tramways opened between 1826 and 1831, and worked by horse power, American railroad construction fairly commenced in 1831, when a section of the Baltimore and Ohio railroad, about 60 miles in length, was first worked by steam power, the engine being of American construction. The Mohawk and Hudson railroad was opened and worked in the same year by an engine of English make of 6 tons weight, which

being too heavy, was replaced by an American locomotive of 3 tons weight. The gauge of these railroads varied from the 6 ft. gauge of the "Eric," through the gradations of 5 ft. 6 in., 5 ft., 4 ft. 10 in., 4 ft. 9 in., and 4 ft. 8 $\frac{1}{2}$  in., to the 3 ft. gauge of the Denver and Rio Grande, a line of considerable length. Where timber was abundant, wooden railroads had sometimes been introduced. The permanent way then cost about £240 per mile. The severity of the climate in the Eastern States added greatly to the cost of maintenance. Moderate falls of snow were cleared by a small plough attached to the cowcatcher; but for heavy drifts snow-ploughs of more elaborate construction were necessary; and, even with these, days often elapsed before the line could be cleared. Progress in railroad construction in the United States had not extended hitherto, in any great measure, to lines for the daily use of those who dwelt in the chief cities. Whilst this was true of the large centres of trade, it was curious, on the other hand, to notice how main lines were carried on the level, and without protection, through the streets of considerable towns, the express trains often running through without stopping.

#### SKILL IN COMMON THINGS.\*

The philanthropic or sanitary field is, after all, only a small part of the wide area which science now floods. Consider the endless improvements in the construction and application of machinery, such as the introduction of hydraulic riveting and planing machines, and the use of compressed air for underground excavations and haulage. Consider telegraphy applied to railway signalling and the regulation of clocks, and pneumatic despatch tubes now employed in large towns for the ordinary forwarding of messages. Or, to take a more concrete instance, think how science has influenced and modified the not uncommon operation of house-building. In the quarry we find ingenious pumps and cranes. Machinery has long been used in the brick field, and is constantly being improved. Mortar has received much consideration, but is still somewhat mysterious. The woodwork has been dressed by machinery for some time, and now the stones are also prepared by a machine. We have Selenitic plaster, machine-made parquet for the floors of our rooms, and tiles for those of our halls. Various paints and decorations for the walls, and various metallic carvings for the roof. Hot and cold water in all directions, and ingenious sanitary appliances. But the list might be continued not only to include the general furnishing, but even the cooking and serving of the dinner. This will be concocted in somebody's patent kitchen. The master will ring for it with an electric bell. It will be sent up, or perhaps even down, stairs by a "hoist," and the dining-room will be lighted with air gas. True, the utility of some of these inventions may be doubted and others are hardly perfected, but their mere existence is the point which chiefly concerns us at present. The fact that there are such things at all shows the marvellous way in which true engineering thought and skill are applied to common things.

#### THE WASTE LANDS OF IRELAND.

From the first report of the commissioners, they divided the flat or red bogs of Ireland into twenty parts, seventeen of these lying across the island between Wicklow Head and Galway, and Howth Head and Sligo (twelve being west and five east of the Shannon), the remaining three parts, two south and one north of these lines. The total of these red or flat bogs cover 1,576,000 acres, of which ten engineers surveyed twenty-five districts of 1,013,358 acres. Three other surveys reported the mountain districts of Erris as 170,000 acres red bog, and 155,000 of thin and easily reclaimable peat; the mountain districts of Connemara as 120,000 red bog

and 200,000 peat; the Wicklow Mountains, 97,000 red, and a considerable quantity of peat; the districts of Slieveclogher, Slieve-mish, and Corkaguinney, 500,000 acres of upland peat bog; Donegal, Fermanagh, and Tyrone, 400,000 acres peat—the peat mountains and uplands covering altogether 1,225,000 acres. The engineers surveying were Messrs. Griffith, Nimmo, Longfield, Jones, Bald, and others—all except one recommending their improvements, which they stated would increase the rental 10 to 15 per cent. on the expenditure. The estimated cost of draining the twenty-five districts of 1,013,358 acres was £1,277,828, or over £1 5s. per acre; and of reclaiming moors and bogs, from £1 to £20 per acre.

Since then the Devon Commission issued another report, strongly urging their improvement as remunerative and profitable, while giving great employment.

In addition to these waste lands, there are a quarter of a million acres of foreshores, slob and tidal lands, chiefly belonging to the Crown, which they might reclaim and sell, as Holland has done and is doing. During the famine in 1847, Lord John Russell proposed a loan of a million for the State to purchase, reclaim, and then sell the waste lands, in lots to suit purchasers, and thus establish a small proprietary. As the owners since 1845 had the opportunity of reclaiming on State loans, and have not done so, or of letting on a sufficiently long tenure to enable others to do so, it is now time to carry the first report and that of the Devon Commission into effect. No measure would be more popular than for the Government to undertake such works, or to enable the poor-law unions, corporations, harbour and town commissioners to do so, when passed by the ratepayers, grand juries, and Board of Works, as is done by the communes in France.

We give from the first report an account of some of the largest drainage districts, viz.:

|                                       | Acres.  | Cost of Drainage. | Engineer.    |
|---------------------------------------|---------|-------------------|--------------|
|                                       |         | £                 |              |
| Lough Gara .. ..                      | 83,689  | 99,350            | J. Longfield |
| Three Districts, Mayo and Sligo .. .. | 161,692 | 184,928           | Bald         |
| Lough Corrib .. ..                    | 83,724  | 117,982           | J. A. Jones  |
| Northern Suck .. ..                   | 52,390  | 59,708            | R. Griffith  |
| Southern do. .. ..                    | 76,848  | 98,318            | Do.          |
| Eastern Bog of Allen .. ..            | 36,430  | 77,017            | Do.          |
| Western do. .. ..                     | 41,075  | 66,978            | Do.          |
| Boyne .. ..                           | 42,370  | 75,060            | J. A. Jones  |
| Brusna .. ..                          | 44,594  | 87,233            | J. Longfield |

When the first report was made there were no railways in Ireland, and steam communication with Great Britain was only in its infancy,—prices of beef, mutton, pork, and butter about half of the present rates. Guano and artificial manures were unknown. During the Devon Commission there were few railways, and not one-third of the steam facilities we have now. Hence, if reclamation would then have paid 10 to 15 per cent. on the outlay, what should it not pay with the high prices of produce, the facilities of portable manures, and ready markets?

#### CORRESPONDENCE.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—I believe it was I who stated that the Deputy County Surveyors had (after deducting travelling expenses, postage, and county advertisements, &c., out of their salary of £80 per annum) only about £50. Mr. Orpen, C.E., was right in stating so to the Chief Secretary, as I can at any time vouch for its accuracy. Though for the last three months I have been unattached to the model little County Carlow (having resigned in disgust), still I have the interest of the Deputy Surveyors at heart, and may return to their ranks again. Should I re-join that body, will the ten years I was attached count in the long-expected superannuation? If so, I may probably break fresh ground in a third county.

MEM. I.C.E.I., Assoc. I.C.E. ENG.  
9th December, 1874.

\* From address by Mr. J. Cunningham, C.E.



## OUR CITY LIGHTING, AND ITS COST.

TO THE EDITOR OF THE IRISH BUILDER.

SIR,—On the 8th instant an unusually large number of members of the Corporation assembled in the City Hall, apparently for the discussion of city business, but really for the perpetration of a gas job, as the sequel of the performance shewed. After an opening farce and an interlude, the grand piece of the day was gone through by the appointment (on the motion of Councillor Byrne, seconded by Councillor Murphy) of the Inspector of Public Lighting, at a salary of £300 a-year, to the permanent office of Tester of Gas Meters, Examiner of Gas, and Inspector of Public Lighting—33 votes being given for and 2 against the appointment.

The mover of the resolution, during his address, had the audacity to make a statement that his nominee had effected a saving of £312 in the gas accounts during the probationary year of his holding the office, his appointment to which (to say the least, it was injudicious) was strongly opposed by the public on the grounds of his being a near relative of the manager of the Gas Works; and, five months after, in the petitions presented to the House of Lords against the gas bill, objections were made to the perpetuation under the bill of the unsatisfactory mode of testing the quality of the gas supplied and the meters used in its measurement, on reading which clauses, every gas consumer whose signature I applied for promptly signed the petition, thus exhibiting a widespread feeling of disgust and contempt for the existing arrangements.

In Manchester, Oldham, and other places, the tester of gas meters receives £150 a-year, but such is the quantity of gas meters manufactured in those places that the fee paid for verifying them is sufficient not only to clear all expenses, salaries, &c., but a balance is left for the public funds, and no complaints of incorrect meters are ever heard of there. In Dublin the ratepayers are now permanently saddled with £300 a-year for one salary, and about £150 additional for an assistant, and the other expenses of sustaining an establishment, the fees received in which last year amounted to about £40; and, as for the way the work has been done, who that has to use one believes in a Dublin gas meter?

Along with having a Gas Examiner appointed by the Board of Trade, the Citizens' Committee succeeded in having the price of the gas consumed in the public lights reduced from 4s. 8½d. to 3s. 11d. per thousand cubic feet; and to this alteration in the price, commenced on the 1st of July last, is to be attributed the saving of the £312 spoken of, and not to the careful supervision of the Inspector of Public Lighting, as was erroneously stated by Councillor Byrne when advocating the permanent appointment of that official.

That this saving should have been of a much larger amount is proved by a reference to the total cost of the gas, at 3s. 11d. per thousand, used in the public lamps during the years ending August, 1871 and 1872. In 1871 £6,235 15s., and in 1872 £6,341 13s. 11d., were the amounts paid for the gas so used during those years. Only a portion of the money paid for the gas burnt in the public lamps during the year ending August, 1873, is returned in the last statement of the Corporation accounts, and whoever is living in 1875 will then learn the total amount paid for gas in that year. I have good reason to believe that the amount will be about £7,000; but, whether I am right or wrong in this, Councillor French, at the meeting in question, exposed the fact that the estimate of the cost of the public lights for the ensuing year is put down at £8,000.

Let the over-taxed ratepayers of Dublin (with their 3,300 public lamps—many of them dirty and broken, many of them consuming from 1 to 3 cubic feet only of gas per hour, although all of them are charged with the hourly consumption of 5 cubic feet at 3s. 11d. per thousand) compare this estimate of £8,000 for lighting their public lamps during the ensuing year with the amount paid in Glasgow for the 26-candle gas at 4s. 7d. per thousand, burnt in 7,836 public lamps, for the year ending May 28th, 1874,—£8,558 15s. 3d.; and be it remembered that each of those lamps is lighted 3,711 hours per annum—about 500 hours longer than the Dublin lamps are allowed to remain lighting. Will this £8,000 really be applied for such purpose?

The ratepayers of Dublin would do well in returning as their representatives (?) in the Corporation and other boards parties who once moved in the humble walks of life, instead of selecting persons whose public acts, as they appear daily in the pages of our local history, stamps them with endeavouring to make the poor still poorer by their increasing the taxation, by their wanton waste of the public money in increasing the salaries of worse than useless officials, in persisting that the young females in our poor-houses shall not get the chance of earning a respectable living by emigration, but must remain here to swell the number of unfortunates who night and day infest our streets. Men who have not only prohibited the inmates of

one of our poor-houses of enjoying a drink of porter with their last Christmas dinner, although a kind-hearted gentleman wished to supply it at his own expense, but such is their seeming horror of poverty that they become almost as "ghouls" tearing the bones of the poor from their last home; and, not content with denying them the only thing they formerly in this life could with certainty count upon—a share of the grave in which their forefathers sleep—they also decline to comply with the request of the Local Government Board of giving an increase to the salaries of the only friend the poor have beside their clergy—the hard-worked and badly-paid gentlemen attending our medical dispensaries.—Yours, &c.,

12th Dec, 1874.

JAMES KIRBY.

## CIVIC LYRICS.—No. LXXV.

## OUTS AND INS.

A Mayor goes out;  
A Mayor comes in;  
We'll get a fresh spout  
Next year to begin.  
This year we had wind  
And water enough;  
Next year we may find  
Much more of that stuff!

The Liffey will need  
A spout of some sort;  
The Mansion House feed  
Will shew his import.  
The spout is the cure  
For all Dublin's ills,  
And means, to be sure,  
Strong main drainage pills!

A good spout will draw  
The rain from the clouds;  
The ice it will thaw,  
And bring friends in crowds!  
It boots not how long  
The Liffey gives stench;  
The spout, if it's strong,  
Will stifle the Bench!

Ring the old year out,  
Drum in the new—  
'Tis meet for the spout  
And action in view!  
A something, perhaps,  
May follow the noise,  
As Corporate chaps  
Are promising boys!

Farewell to the year,  
To burdens that vexed,  
And debts in arrear,  
To pay in the next!  
"Improvements" will come  
Next year, we suppose,  
With Corporate thumb  
On tip of the nose!

CIVIS.

## THE ROYAL DUBLIN SOCIETY'S ART SCHOOLS.

It were to be wished, and the wish realised, that the authorities of the Science and Art Department at South Kensington would exhibit a little more generous spirit towards the Dublin schools. True, they have lately rendered some little assistance in presenting three studies from life of male figures, and these works were executed by MacIise, Mulready, and Briquet. They will, no doubt, be found most useful as examples of the use of the chalk in rendering the human form, and showing the gradations of light and colour in the flesh of the living subject.

The Dublin School of Art, at present, can bear favourable comparison with any in Great Britain, and it has strong claims upon the Government of the country. When art was little studied in the sister kingdom, or here, the Dublin School existed, and the Royal Dublin Society, to whom it owes its existence, bestowed what fostering care it could on its offspring. In the eighteenth, or early in the present century, the study of art had to be pursued at a great disadvantage in Dublin; but notwithstanding all the obstacles, Dublin has turned out artists, in the last and present centuries, of which any nation would feel proud. The Dublin and Cork schools, in the present century, have produced artists who have risen to the top of their profession, and who have met with a generous recognition from Englishmen. The schools of the Dublin Society are not what

they were forty or even twenty years ago. They have grown and improved with the times; they are all under able management, and the teaching given is earning them wide reputation. This teaching has benefited, and will still further greatly benefit manufactures, leading to improved taste in design and execution. The practice of drawing from the living form will also conduce to the same ends. With the resources possessed by the London Department we did hope, and do still hope, that more assistance will be rendered in affording aids to art instruction. Several petty parishes in England and within the London Metropolis, with art schools, have been greatly assisted by the Science and Art Department, but here, in what has been termed "the second city in the empire," an art school with a long and creditable history, and possessing at present an undoubted reputation, is scarcely assisted. Good management, however, and the inherent taste of its pupils for the subject of their studies, has enabled the Dublin School of Art to hold its present proud position.

## L A W.

## "THE TALE OF A TUB."

## POLICE COURT—NORTHERN DIVISION.

*Gray v. the Dublin and Chapelizod Distillery Company.*—The plaintiff in this case is Mr. Gray, one of the surveyors of County Dublin, who, at the instance of the finance committee of the County Grand Jury, summoned the defendants for having within the last six months built a vat or still-house, situate at Chapelizod, and which house or part thereof projected over certain portions of the public road. The plaintiff's case was that it was contrary to the statute to erect such a construction within 30 ft. from the centre of the road, and that the penalty in respect of such a breach of the law was a sum not exceeding £10, and a further sum not exceeding 10s. for every week until that portion of the building complained of should be removed. It appeared that a wall about 20 ft. high had been built, which was within the statutable distance from the centre of the road, but it was surmounted by a worm tub which projected 4 ft. or 5 ft. over the wall. The case for the defence was, that the tub was an independent structure, and was supported without the wall by iron girders. Their worships dismissed the case, on the ground that the projections complained of were not houses, or parts of houses, within the meaning of the Act.

In our opinion, and in unison with the old adage, "every tub should stand on its own bottom." Those who can read and understand will be able to form a judgment whether the law has been vindicated in the above instance or not.

## THE SANITARY ASSOCIATION AND THE PUBLIC HEALTH COMMITTEE.

SOME time since the Sanitary Association appealed to the Public Health Committee of the Corporation, requesting that body, "by placard or otherwise," to warn the people of the districts of the city attacked by the existing epidemic of scarlatina, of the necessity for disinfection. The Public Health Committee refused to do so on the plea that such warning would do more harm than good by causing "unnecessary alarm." Mr. F. Pim, hon. sec. of the Sanitary Association, places a record before the public of a number of fever cases, and the manner in which the disease is spread by the use or removal from one house to another of bedding or clothing which had not been disinfected. Mr. Pim asks the public, in conclusion, "to judge, between the Sanitary Association and the Public Health Committee, whether more alarm would be caused in a neighbourhood by such a public warning as was suggested, or by the removal, within five days, of four members



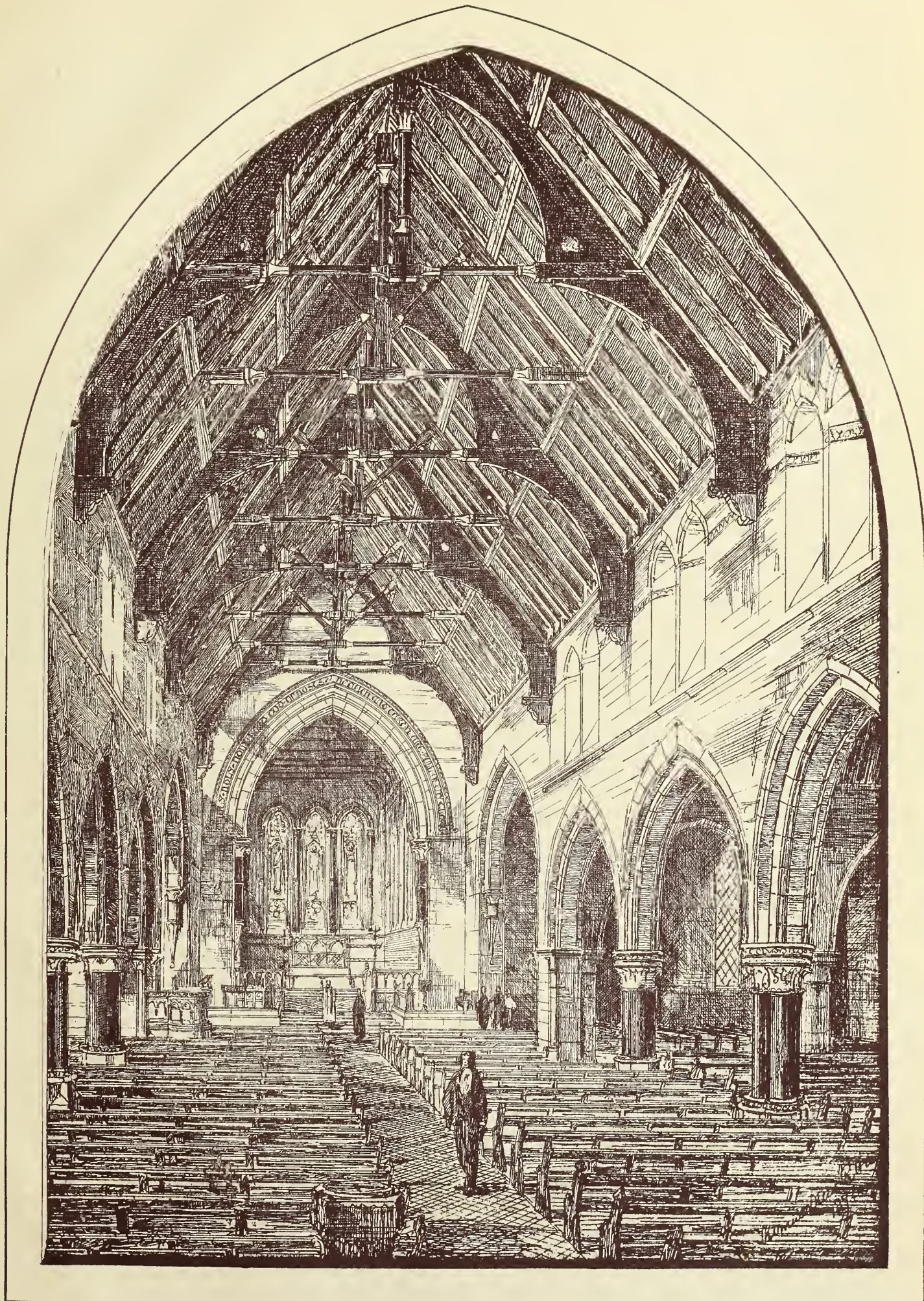


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INTERIOR OF ST. LUKE'S CHURCH - CORK

— THOMAS DREW R.H.A. —



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of one family to a fever hospital, and of two orphan children to the workhouse, while the head of the family flies panic-stricken, perhaps, to spread the disease elsewhere; and whether any conceivable alarm that might be caused by the most startling placard that the sanitary authorities could devise could justly be deemed 'unnecessary,' if it proved effectual in preventing even a few of these fatal occurrences." Mr. Pim adds in a postscript that, since the first appeal on this subject was made by the Sanitary Association to the Public Health Committee, scarlatina has killed more than 600 of our population.

#### PRIZES FOR LABOURERS' COTTAGES.

In reference to the prizes proposed to be offered by the Royal Agricultural Society of Ireland for the best managed farms, and to the prizes for labourers' cottages, the current issue of the *Leinster Express* says:—

While referring to the subject of farm competition we may state that the Royal Agricultural Society has resolved to offer one of its large gold medals, or the value of the medal in money, for the most approved labourers' cottages in each province. The Duke of Leinster also offers, through the Society, a Cup value £140 to whoever shall build the most approved labourer's cottage in the whole of Ireland. The competition in these classes will, we understand, be confined to landowners. It is unnecessary to enlarge on the benefits likely to result from the action taken by the Duke of Leinster and by the Society. We have on many occasions urged the importance of having the labouring classes properly housed, and indeed the urgency of making some improvement in their present wretched dwellings has never been denied. The desired end, however, is not easily attained. Many landowners have built comfortable cottages for the labourers on their estates, but in most cases economy has been lost sight of in an endeavour to make the dwellings ornamental. The result is that the less wealthy landowners, estimating by their neighbours' experiences the probable cost of any attempt on their part to build the houses required, have been deterred from an undertaking which they have reason to fear would involve them in an outlay far beyond their means. We may trust to time to demonstrate that expensive ornamentation is in no way essential to a comfortable labourer's cottage. If the judges, in awarding the Duke of Leinster's Cup and the Society's Medals, take the cost of the buildings into consideration they will contribute towards this conviction.

#### CORPORATE ITEMS.

At the monthly meeting of the Corporation, a letter was read from Mr. Hull, Director of the Geological Survey of Ireland, calling attention to the fact that in the district of Bohernabreena or Friarstown, near Tallaght, there exists an abundant supply of the very best stone for macadamising, as well as for paving, and that it is at present to some extent employed for that purpose. He suggested that the Corporation should set up a stone-breaking machine on the spot, to be worked by steam or water power. He was satisfied that if this was done the condition of the streets would be improved, and the cost of keeping them in repair reduced. The letter was referred to the Borough Engineer for his report.

The chronic disgrace of the city, its dirt and absence of proper scavenging, formed the subject of a motion by Mr. Gunn to the following effect—"That No. 1 Committee be directed to report to this House upon the present condition of the scavenging of the city, and further, in order to remedy the present very unsatisfactory state of the streets, what steps they would recommend to be adopted for the carrying out of the scavenging with more efficiency." When No. 1 Committee lets us know its views on the matter, there will be then a motion to refer the subject back to a committee of the whole house, and then there will be another reference to the Borough Engineer. This is how "the Great Corporation" of Dublin moves.

On the motion that the estimate of the

"Improvement" Rate be agreed to, Mr. French called attention to a number of items in the estimate, and said there must be something radically wrong where so much money had been spent with such small results. He saw that £14,000 had been expended in macadamising the streets; £14,000 for scavenging; £5,000 for paving; £52,500 for flagging; and £8,000 for public lighting. It had been stated that in one of these items—public lighting—a saving had been effected of £300 in the year; yet while the average of the last three years was £7,700, they were now asked to vote £8,000 for the lighting of the streets. The estimate reached £82,000, and the citizens of Dublin could hardly tell what had been done with the large sum.

The Town Clerk read a letter from Messrs. Hassard and Falkener, C.E.s., London, "offering to construct a system of sewers and works for the purification of the Liffey, including everything necessary, excepting the purchase of such property as will be required, for the sum of £340,000." The plans, estimates, and modes of dealing with the question to be subject to the opinion of Sir John Hawkshaw, on the understanding if we are to be given the contract for carrying out the works at the above-named sum, or if the Corporation prefer to seek for competitive tenders that we are to be paid as compensation such sum as may mutually be agreed on, or in the event of disagreement be determined by arbitration. This letter was marked "read." Well, we suppose the Corporation could do no more in view of the asked-for commission *in re* the Liffey.

#### POINTS.

The main drainage works are again being pushed on with great expedition, but they are exclusively confined to the officers of the City Hall Company.

Nelson's Column is down to the ground, but it is not to be removed till the next generation, despite of the obstruction caused. It is an Admiral affair though not a very admirable one.

There is some talk of converting the Floating Hospital into floating chambers by some Aldermen and T.C.s who cannot get in without floating projects. Life-buoys are also recommended to be moored to Cork-hill to keep it from drifting, and perhaps carrying the whole big house with it.

There are obstructions in the Lotts and lots of obstructions in the streets, but the latter are not deemed worthy of notice, and are tolerated by our rulers because they are intolerable.

The great Sanitary Egg Case is postponed till the Spring Sessions. It is believed that the case must break down, as the eggs when purchased were not really rotten, but had full-formed chicks within them. It is a pity the affair was not better hatched before being brought before our law courts.

Councillor Burnside has given notice in the Town Council that he will not in future be responsible for his motions if they are carried. He prefers they should stand or fall upon their own bottom. Shrewd fellow, eh?

The Dublin jarvies and cabbies, in testimony of their respect for the manner in which the Town Council have kept the streets for many years to the great profit of the jarvies in question, have resolved, after the new year, to charge only half fare to all members of the Civic body. Street walkers in future are to be treated as "the Great Bespattered" whether they belong or not to "the Great Unwashed."

Our city, which had its river long since destroyed by pollution, will experience another loss at the close of the present year, by losing its *Brooks*. The feeders themselves cannot brook the idea of this drying up, though they are in hope things will flow on again in the reign of Mac.

By order of the Public Health Committee, no more dead men are to be brought to the Marlborough Mortuary in a dying condition. In future, to save the expense of their keep, they must be "kilt entirely."

We are authorised to state there is no foundation for the statement that the Corporation do not intend to avail themselves of their borrowing powers. On the contrary, it is the intention of the Municipal body to apply next session for increased borrowing powers, in order to liquidate the debt already incurred on the head of reports on the Liffey Purification, as also to provide a fund to meet the expenses of several future reports on the same subject. We are also asked to state that "the Unexhausted Improvements Committee" will be remodelled early in the new year, and the first reports of the "Sub-Committee on Slob Lands," and the People's Park Committee will then be submitted.

#### NOTES OF WORKS.

New Catholic Church of St. Patrick, Belfast. Messrs. Timothy Hevey and Mortimer H. Thomson, architects; Messrs. Collen, Bros., contractors. Cost, £12,130.

New parochial house, additions to convent, and new schools, Lurgan, for the Rev. James M'Kenna, P.P. Same architects.

New Catholic hall, Letterkenny, for the Most Rev. Dr. M'Devitt, Bishop of Raphoe. Mr. T. Hevey, architect.

New parochial house, Dunfanaghy, County Donegal, for the Very Rev. T. Diver, P.P., V.G. Mr. T. Hevey, architect.

New Catholic church, Raphoe, for the Most Rev. Dr. M'Devitt, Bishop of Raphoe. Mr. T. Hevey, architect.

Additions to the orphanage of St. Paul, Belfast. Mr. Mortimer H. Thompson, architect.

Additions and improvements to Catholic church, Gweedore, County Donegal, for the Rev. James M'Fadden, Adm. Mr. T. Hevey, architect.

New tower and spire, Catholic church, Warrenpoint, for the Rev. Eugene M'Mullan, P.P. Mr. T. Hevey, architect; Messrs. M'Shane and Lavery, Newry, contractors. Cost, £2,000.

#### HIGH FARMING AND SHORT-SIGHTED LANDLORDISM.

"Mr. Thomas Dowse, 40 Lower Ormond-quay, Dublin, sold for Mr. Hope, at Skeagh, on the 7th instant, 10 acres of Swede turnips at the unprecedented price of £31 15s. per acre over the whole field. In the autumn of this year, he sold on same farm the hay and crops at the following average prices:—Hay, £18 (exclusive of after crop); wheat, £24 10s.; barley, £17 10s.; oats, £16 10s., being the result of the highest farming. In the year 1862 (prior to Mr. Hope entering into possession of Skeagh) Mr. Dowse sold the crops on the same farm at the following prices:—Hay, £3 5s.; wheat, £12; oats, £9 15s.; turnips, £3 per acre." —*Irish Times*.

The tenant who has made the home farm of Skeagh so productive, took it on a promise of lease of 21 years from the late Lord Cloncurry. The present owner turns out Mr. Hope simply because he believed his father had the right to lease for 21 years, and thereon made great improvements; while Lord Cloncurry's plea—good in law—is that his father had only a life interest. "*Summum jus est sepe summa menditia*." It would be desirable to get an account of Mr. Hope's expenditure on house, buildings, improvements, and manures, with a statement of the compensation offered for outlay and disturbance. It is gratifying to find that there are few cases of landowners so acting; but, few as they are, the law should prevent them. The Government should make the land laws so plain and just as to stop the litigation going on under the present Acts. X.



## EXCLUSION OR NON-EXCLUSION IN ARCHITECTURE—WHICH?

WE commend the address of Mr. Joseph Boulton, the President of the Liverpool Architectural Society (the chief portion of which we append), to the serious consideration of the architects of the three kingdoms. His utterances are pregnant, forcible, and wise, and, without being vehement, are full of pith. We were at first inclined to review the subject in detail, but it is handled so clearly and ably we hesitate to traverse any of the statements.

We have ourselves often deplored the exclusive spirit manifested by architects as a body, and their disinclination to co-operate with the very men to whom they are most indebted, and to whom they will always be more or less indebted. Unfortunately the same spirit is manifested in their own ranks, and hence, though we have institutes and societies, the majority of them only vegetate instead of living and exhibiting a healthy life. Some few are useful, but as yet the highest and most ambitious of them is powerless to effect the reform needed in the interest of the profession or the public.

We would point particularly to the remarks of Mr. Boulton in reference to builders and artisans, and the necessity that exists for a different spirit being manifested by architects in their dealings with their co-labourers. "I hope," says Mr. Boulton, "the architect does not exist who has not consulted with builders and with intelligent artisans, and benefited from both." We echo these words, and trust in future that, as skilful builders and building craftsmen are essential to all good architecture, there will be less trivial distinctions drawn in favour of or against any class of skilled hands engaged in building construction. We do not preach the equality that is interpreted by the saying that "Jack's as good as his master," but we advocate harmonious co-operation and that honest acknowledgment of the claims of builder and workman which their technical knowledge or experience should command, and without which architectural design would be little more than pictures on paper, as far as modern architects are concerned:—

If we turn from this brief retrospect of comparatively recent efforts to consolidate floating units into a profession to the earlier history of architects and architecture, we shall find little trace of that compactness which distinguishes the learned professions of divinity and law. It is true that the term architect is used by Herodotus very much in the sense in which it is now employed, including the civil engineer also, and that mention is made of the Ionian Corporation of Architects, but little is absolutely known of the actual position of those elder brethren, of their training, and of the esteem in which they were held. If the thread of history be taken up at a later period the clue is still untrustworthy. But little is known of the society of Freemasons, and how far the architect among them was more than chief workman, as the term literally signifies. It is doubtful if, in many cases, the architect was not of the religious brethren for whom the edifice was constructed; and when he was secular whether he was not one of the workmen who was advanced to that position of "leading hand," in consequence of his superior ability in design or workmanship, after having worked with the chisel, and passed through most of the detailed labour by which architectural design is matured. Take, for example, the description given by Gervase of William of Sens, one of the well-known architects of Canterbury Cathedral. He was not only *vir admodum strenuus*, but *in ligno in lapide artifex subtilissimus*. In the present day it is not considered necessary for an architect to be a very cunning workman in wood and stone, yet it seems highly probable that not only William of Sens, but every other architect in those days, when not one of the regular clergy, was a skilled workman; and

it is not impossible that William himself was both, at the time his unfortunate accident interrupted his work upon the cathedral.

Take, again, another period, that of the Renaissance, and who will say of any of the distinguished men who designed the monuments of that period that he was a trained architect? Neither Leonardo da Vinci nor Michael Angelo in Italy, neither Wren nor Inigo Jones in this country, can be included in that category. And, later still, turn to Dance, of the London Mansion House; Chambers, of Somerset House; or Fowke, of Kensington; and where are to be found the credentials which authorised them to practise as architects?

The lesson which it appears to me is to be drawn from the hasty review I have presented is this—that the exclusivists are premature in their efforts to define strictly who is an architect; in trying to do so they may exclude some who would be most valuable. The first step, I apprehend, is to gather together all who are desirous of being architects, and are likely to conduct their practice creditably to themselves and to those who may be associated with them. In the present stage it seems to me very unreasonable to designate the persons cited as exceptional men; for the list may be indefinitely increased, and it will then be found that the exceptional men are the rule, and regular practitioners the exception. Besides, let it be asked, in what respect were those men exceptional? and if it be answered, in their great ability as architects, will the esteem for those not so exceptional be increased?

But it is fair to assume that hitherto architects have not formed a profession, at any rate, to borrow a legal phrase, within the memory of man, and that the task has yet to be accomplished. Should it be urged that the exceptional men have hitherto sufficed to meet the demand, the rejoinder will be found in the wretched deficiency of taste, propriety and skill in building generally, and in the sentiment that the public ought not to be content with the service they have had hitherto, which, as a whole, was bad because only exceptionally good. That it is more to the public advantage to have all buildings in an architecture which is good up to a certain level, than to have a few above that level, and everything else fathoms deep below; and that so long as reliance is based upon the exceptional the rule must be bad.

But reasoning of this kind presupposes, on the part of the public, intelligence by which it can be appreciated, and I apprehend few will venture to assert that intelligence is general, much less universal. Now, in the present day whenever any important change is desired in public opinion, or public action, it is found expedient to enlist as many as possible of the public to attend when the subject is discussed, or to read essays on the subject. If architects are to adopt a similar policy they must organise meetings, make those meetings attractive, and induce the public, or those who lead the public, to attend, so that they may be interested in architecture, and then have that interest matured into intelligent appreciation. To complain of the want of intelligence and to exclude from the opportunity for improvement those who are accused of being deficient, appears to me eminently unreasonable. In this aspect the various county and diocesan architectural societies are doing good service, though alloyed with a certain amount of pedantry and dilettanteism which is regrettable, but which, possibly, will disappear as the members become more familiar with architecture, and with all its practical relations. In all ages the priesthood and the clergy have been the best friends of architecture, and when they and the public get beyond the limits of amateurism, they will better realise the great responsibilities of an architect, and will be reluctant to interfere with the results of his special study. In all branches of knowledge it is usually found that the ill-informed are presumptuous in the little they have acquired, while the better informed are content to rely on intelligent advice. The former are ever ready to patronise pretenders and quacks, while the latter are too wise to believe in the intuitive possession of knowledge and skill, which they know can only be acquired by laborious study and lengthened experience. The competent man has nothing to dread from the criticism of the well-informed; and so, as it appears to me, every architect worthy of the name should strive to make the public well informed, in order that shallow pretension may not be encouraged to his disadvantage.

There are indeed those who appear to dread the diffusion of a knowledge of architecture, lest every man become as wise as themselves, and the number of untrained practitioners be indefinitely increased. But in addition to the beneficial results which, as suggested above, may be expected to attend a more general architectural cultivation, the proper check upon the surreptitious assumption of an architect's

standing is to give to the architect the protection of a stated examination and a diploma; and the public would participate in that protection, as they would have a guarantee that the possession of a diploma indicated a known minimum of training. It may be many years before the profession may obtain such a recognition from the Legislature; certainly they cannot expect it until they have acquired the influence which only union can give, and can prefer their claim potentially. A chartered Institute that represents but a small fraction of the recognised architects of the kingdom, and local societies, which include only half of the known resident architects, cannot exercise much weight on either national or municipal councils. Yet there have been many occasions on which the influences of the profession might have been usefully employed if the profession had any influence. As it is, the Institute has been serviceable on occasions, and in Nottingham and in this town the local societies have also been useful, and possibly similar effect has been felt in other towns. But it is manifest that the influence of the whole must be greater than that of a part, and the more comprehensive the Institute or a local society may be the more will its influence be acknowledged.

In this aspect the co-operation of influential laymen is of great importance, but then they must be intelligent on architectural topics before they can be really efficient aids for architectural purposes. To reproach laymen with ignorance and apathy, and to withhold opportunities for acquiring information and interest, is a policy eminently unjust and suicidal.

As respects the co-operation of builders, it appears to me most desirable that their co-operation be secured. The tone sometimes assumed when this topic is discussed seems to me very shortsighted and not a little presumptuous. The same persons who are very happy to associate with those whose skill is applied to the execution of the more æsthetic parts of a design—sculptors, artistic painters and decorators—appear to shrink from contact with those who undertake the more constructive features. Now, both classes are essential to all good architecture; and the constructors are the more essential, because, as now practised, there is much architecture on which the scope for the artistic classes is very restricted; whilst there cannot be any architecture without building.

The jealousy, to speak candidly, which is frequently manifested towards builders appears to me very unwise, besides being extremely undignified. There is, or ought to be, sufficient scope for both, with a clear line of demarcation; and also many occasions in which their harmonious co-operation is most desirable, if not essential.

I hope the architect does not exist who has not consulted with builders and with intelligent artisans, and benefited from both. Considering how much knowledge is required to form a perfect architect, it is almost impossible to conceive of any man who possesses a mind so cyclopædic as to have all the information ready upon all occasions. His practice must be confined to one line, and be also very limited, and the sooner the younger members of the profession rise above the shallow notion that it is derogatory to seek aid from those of more experience in any branch of construction, or art, the better for the best interests of their profession and themselves. Now, whilst I would be as jealous as any of the interference of non-professional persons in the regulation of professional practice, I deem it of great importance that men experienced in the various branches of construction should be induced to attend the society's meetings, and to contribute the results of their experience to the general fund; and I am convinced that the interchange of opinion and the comparison of various experience would be of service to all—to the builder as well as to the architect. Who would not be delighted if Phidias were present to relate the growth of the Parthenon, the devices by which the blocks were conveyed from Pentelicus, inspired by his genius, and placed in the positions designed for them? And if his garrulity should run on over the polychromatic decorations, the preparation of the surface, the manufacture of the pigments, the combinations of colours—whether these and other proportions were determined by experiments *in situ*, or predetermined in the study,—all those topics would be full of interest as of instruction, and every architect would delight to hear Phidias the tale unfold. Yet some of these are matters of construction; and if the men were equally competent, I see not why those details should be more interesting from Phidias than from the ancient representative of the modern contractor.

But then there are builders who profess to be architects, or really have a trained architect in their establishment. This, doubtless, is a fact not favourable to the friendly regard of other architects; but, then, why does the phenomenon exist, and



what is the remedy? I apprehend it is due to the ignorance and apathy of the public, to which reference has been made already; and that architects generally would say that the combination is as undesirable as would be one between a physician and pharmacist; yet apothecaries have existed, and if not now to be found, the reason is in the greater enlightenment of the public, and in the efforts of both pharmacist and physician to prevent such a mulish monstrosity. If the combination in one person or firm of the architect and builder is bad, the evil can only be corrected as was that in the treatment of disease. At any rate, so long as so many of the public, including royalty itself, prefer the combination, architects and builders who object have no other resource than to work together until they are able to attain the result which has been gained by the physicians and pharmacists.

Let me remind you of one who is or has been a contractor for railways, and is also one of the most eminent authorities in architectural history: whose works, when he followed the profession, were esteemed as among the best results of patient research and artistic feeling, and who, since he has abandoned the practice of the profession for the more lucrative construction of important lines of intercommunication, continues to enrich its literature with learned and valued treatises on topics of great interest. The gentleman to whom I refer still holds an honourable position among the Fellows of the Institute; and when he lends his ever acceptable presence at the critical examination of an ancient structure, or to the popular elucidation of architectural history, is welcomed with the respect and enthusiasm due to one who clothes learned erudition in unaffected language, through which the treasure he has laboriously acquired is rendered accessible to all.

No one would presume to question his right to retain an honourable position in the profession; but in conceding that it appears to me the principle of exclusion is shown to be fallacious when strictly interpreted. Thus the admission into a professional society of those who do not follow the profession, but are engaged in the practical development of design, becomes merely a question of degree, to be determined upon the qualifications of the individual proposed, and not on his relations to a class. This being so, it is to be hoped that individual recommendations will be esteemed with all reasonable liberality.

It has been satirically observed by a member of the profession that architects are all *sole* and no body; for each engages in the battle of life as though it were guerilla warfare, instead of being one in a regular army. Doubtless there is more romance and individual prowess in the former; but there is less enduring strength, and there is more room for suspicion. The guerilla's great success may have been a brilliant achievement chivalrously performed, but it was done privately, it is open to suspicion, there is no surviving witness of the fray, and jealousy utters insinuations which poison the breath of fame. It is not good for architects to be alone; like other people, they are by nature gregarious, and he who holds himself aloof exposes himself to misconception, and to being deemed sulky, conceited, arrogant, supercilious and morbid, just as all persons too reserved incur the like reproach. They, with builders and some artists, are members of one body; and the body is most healthy where all together work loyally and harmoniously, each discharging his proper function.

The comparative seclusion of the drawing office, in which the pupil passes the earlier portion of his professional life, is favourable to morbid sensitiveness and to ignorance of the world. By knowledge of the world I do not mean familiarity with vice, which may be acquired in all places, but that faculty of appreciating the characters which are encountered in business, and of avoiding collision with their prejudices and peculiarities. This faculty, as well as a more robust mental frame, have afterwards to be acquired, and so an architect is at disadvantage as compared with members of most other pursuits, that those acquisitions are so long delayed as to be comparatively imperfect. Not that there are not members of the profession who possess excellent tact and discrimination either intuitively or through more favourable opportunity, and are thus enabled to escape feeling those rebuffs to which many are too susceptible. Of those more fully prepared is the man of warm complexion and far from emaciated countenance, which testify to the orthodoxy of his practice through apparent intimacy with bishop's port, whose inexhaustible fund of anecdote is served up *au naturel* or with *sauce piquante*, as occasion may require: and he also, who, with a gentle strong, a deprecating smile, and elevated eyebrows expressively implies, of a dangerous competitor, *I could an I would*; or astonishment at the confidence placed in another practitioner who is so very young.

A good deal of the misapprehension as to the constitution and aims of an architectural society appears to arise from a false analogy: the older professions are assumed as a standard, and it is also assumed that the parallel between them and architecture is exact. I think it would be more correct to draw the comparison with music, sculpture, the drama, or civil engineering. Taking music—which, like architecture, combines science and art—it is impossible to secure a popular appreciation of the finest work without the aid of many assistants; to take an extreme case, that of Beethoven, it is possible for a very fine composition to be designed and prepared by one who is utterly unable to strike effectively a single note; the practical power may not exist through a natural incapacity or deficient training, thus making more perfect the analogy of those architects who are not, like William of Sens, very cunning workmen in wood and stone. Supposing that it was thought desirable in any place inhabited by several composers to establish a musical society, it is easy to conceive the indignation which would be excited if those composers were to declare they were the only persons entitled to be called musicians, and that the society must consist exclusively of them; that such practical people as Malibran, Lablache, Linley, and others were mere performers, and not musicians, and therefore, could not be included in a professional society. So also in the drama, the Kembles, Keans, and Macready must be excluded from association with the Addisons, Sheridans, and Colemans, and even William Shakspeare would appear something of a dubious character, because he is suspected of having donned buskin, and strutted his little hour upon the stage.

It is notorious that plays, as acted, differ more or less from the original manuscript; that the arrangement of music for performance is different from the original score, because in each case the practical members of the respective professions know better than the composer or author what will go, what will take with a miscellaneous audience in a large building. They understand the difference between presentation to sight and hearing, as compared with the quiet perusal at home. The author, or composer, may be unaccustomed to the boards, and have studied his art at home; addressing himself to that theatre, he may be eminently successful, and yet nearly fail in the larger house.

I do not say the analogies suggested are perfect; possibly there never was an analogy which was complete in all respects, but it appears to me the comparisons I have sketched present the subject in a light something different from ordinary, and one which gives prominence to features too much overlooked. So far from severing the different branches of the profession by hard rigid lines, they should, as it seems to me, be drawn together as much as circumstances will allow. That, as architects and amateurs of architecture have established in London the Architectural Museum, to which artisans are invited, and in which they have not only the opportunity of study, but are assisted by actual instruction and by competition for prizes, so the endeavour generally should be to give to all artisans such technical training as will enable them to appreciate a design, to sympathise with the architect, and to have pride and pleasure in its execution. To some these views may appear chimerical—perchance beautiful dreams which will vanish before the broad glaring light of a work-a-day world. I hold a different opinion, and adduce the Architectural Museum on the one hand, and the acknowledged practice of the Freemasons on the other, as evidence that such instruction can be judiciously given, and that the results are extremely satisfactory.

If this view is correct, so far as regards artisans, how much more influential will such training be when extended to the employers of artisans and to the general public. Now it is manifest that master builders and the public will not be interested, they will not be cultivated by exclusion; they must, as far as possible, be brought within the influence of those tastes, ideas and aspirations with which it is desired they shall sympathise, and in the realisation of which their co-operation is essential.

The profession and its dependencies are split up into narrow cliques, each of whom must have, if possible, its special organ in the press, and its special society, or will stand aloof from all. Thus the strength, which would be of immense value, if combined, is almost useless, because distributed through so many channels, and consequently when occasion arises, in which energetic language or prompt action would be serviceable, the profession is dumb and nerveless. This should not be; it is quite time the profession of architects should take a recognised position, not only in London but throughout the empire, so that when either departments of the Government or municipal authorities err, and evince disrespect towards any architect,

the fitting protest or rebuke may not be wanting. The case of one may become the lot of any; and though "Smith's" warm zeal may be due, in great measure, to his strong personal interest in the issue, Jones, Brown, and Robinson should help Smith so far as he is right, and they will have a claim upon Smith for his assistance on another occasion. The remonstrances of those who are not directly interested in a special case, if made temperately yet forcibly, will have their effect much more than if they were uttered by the architect personally aggrieved. And each step so gained elevates the profession in the esteem of the public and of its own members, and becomes a precedent.

Much more might be urged, but I fear to weary you. Thus imperfectly I would invite those whom my words may reach calmly to reconsider the position the profession holds. Sure I am that at present it is far from satisfactory. Some sort of change, then, is desirable; what form shall it take?

A more vigorous support of the Institute, as the chartered representative, who will always have the preferential hearing with the general public, with the Legislature, and with ministers of State?

The establishment or invigoration of local societies affiliated to the Institute, and working with it on all occasions of common because professional interest, and each endeavouring within its own local sphere to secure a more honourable regard from the public for the profession we pursue; more uniformity of practice among ourselves?

A peripatetic association, which throughout the country—at any rate in the great local centres—shall carry on the much-needed work inaugurated by the Alliance and adopted by conference; in conjunction with the excellent project of an association for the encouragement of the fine arts, recently broached in a professional journal?

These are questions pregnant with much advantage or disadvantage, as they may be interpreted: I must leave them for such response as they may receive, or until another season, when I may invite you to their consideration. In conclusion, I trust it will not be forgotten that in architecture there is science as well as art—statics as well as æsthetics. It is related of the Theban Epaminondas that when, after saving his countrymen from subjugation, they in a moment of popular pique elected him to the office of city scavenger, the fine old veteran accepted the appointment, saying—"It is the man who ennobles the office, not the office the man." So in all good architecture, all who truly help act with honour to themselves—the artisan as well as the architect; and the latter should ever remember his most honourable appellation means nothing more than "chief workman."

#### ON COMPETITIONS.\*

"THERE is one more subject, but I must dismiss it in a very brief manner—competitions. I never went in for a competition in my life, and would popularly therefore be supposed to know nothing about them. Well, through accident and through my friendship with so many here, I do happen to know a good deal about them. Perhaps I take a strong view: I told you I had strong views on some subjects, and I view competitions as the 'curse' of the profession. Theoretically they are so grand—best man! best design! &c.; but practically where has the best man and best design gone to?—why, the wall. Well, it is rather cruel to talk like this when I may have so many 'best men' among my audience, who sent in the best designs, of course, and I may be outraging their feelings and reviving bitter memories they would sooner forget; but I must explain why I look on competition as a curse. Why does the general public give us rather the cold shoulder sometimes? Because the aforesaid public knows sometimes some disagreeable facts. 'Little Peddlington Parish Pump Competition. Sir (a lithographed form),—In reply to your request for particulars of this competition, I regret to say we have no more forms, as over two hundred architects have already been supplied. Signed on behalf of the Building Committee of the Little Peddlington Parish Pump Public Competition.'

Over 200 architects applied. I have altered the name, but *that fact remains to my knowledge*. What opinion, do you think, the

\* From Mr. G. H. Birch's address, London Architectural Association.



Peddlington Committee held about the architectural profession after that? According to the public we are all ready to circumvent and to cut one another's throats. Can you be surprised that 'competition' is the cause of that belief? Take another instance: A church is to be built. A limited number of architects are asked to send designs; they will only compete on the conditions that a professional man of known ability and integrity is appointed judge. The committee agree; the designs are sent in; the award arrived at after most careful sifting of the several designs. 'In Memoriam' is put first, as having carefully kept within all the requirements of the particulars supplied as to cost, accommodation, &c. The committee reverse this decision; put it on one side, and choose for themselves out of the four designs the worst and the most expensive; the one that they had settled all along should have it. No fictitious case again, but a fact.

Well, Hastings Town Hall, Cardiff Free Library, Addiscombe—where are all those competitions? Consigned to limbo, to rot in that Stygian lake of past competitions, that will only stink if you stir them. I don't come before you with a remedy for all this. You have the remedy yourselves. Be wise, and save your labour, your toil, and your pains, and avoid competitions. Never mind how tempting the bait; join not the swarm of minnows."

#### SANITARY AND OTHER NOTES.

\* At a meeting of the South Dublin Union sanitary authority, the Master submitted certificates of analyses and samples of milk, supplied by Dr. Charles Cameron, City Analyst, which were to the effect that the milk supplied to the house by Thomas Keegan, Dora Intley, and James Intley, contained 12 per cent. of water, whilst that supplied by James and John Rafter and P. White *was pure*. Mr. Byrne wished to know if they could not prosecute in such cases. The Master intimated that a case of similar character had come before the magistrates some short time since, and had been dismissed on the grounds that the guardians had adopted the cream test, and, therefore, could not go outside it. Mr. Byrne could not agree with the justice of the decision. It was never intended by the guardians to restrict themselves to any one test of the purity of the milk. If the milk in the present instance contained 15 per cent. of water, he would advise a prosecution.

ARMAGH.—At the union sanitary board a letter from the Local Government Board was read, which stated "that the Local Government Board are not aware that that Act makes any change in the form of notices under the Nuisance Removal Acts. The 62nd section of the Public Health Act requires that notices should be signed by the executive sanitary officer. All further proceedings should be conducted in accordance with the directions of the Sanitary Authority, and it is the duty of the executive officer to see that their orders are carried out. The Local Government Board consider that the sanitary sub-officers are the proper persons to serve the notices in their respective districts, and they are required by the sanitary order to assist in carrying out the directions of the Sanitary Authority." Other sanitary boards in the provinces would do well to issue a "sanitary notice" similar to that signed by the executive sanitary officers of the Armagh Union, in which the attention of the public is directed to what are offences under the new Act, and explaining other matters in respect to sanitary duties and the scope of sanitary officers.

ARTANE.—At a meeting of the North Dublin Union sanitary board, the subject of the water supply of Artane was opened. The Local Government Board, in reference to the determination of the sanitary board to assess townlands outside Clontarf with the cost of supplying Artane with Vartry water, asked why it was proposed to include in the area of taxation a large portion of the electoral division of Drumcondra, which could not derive any benefit from the water supply. They also desired that the townlands should be specified in which the villages of Artane and Donnycarney are situated, and the townlands in which persons may obtain water by means of the pipes to be laid down. The consideration of the letter was adjourned to next meeting.

BLACKROCK.—At a meeting of the town commissioners last week, a long discussion ensued on

the head of certain plans proposed by the engineer. Among several resolutions and amendments the following were proposed by Mr. Magrath, seconded by Mr. Alma, that a resolution passed a month ago should be adopted, to the effect that the engineer should "prepare plans and specifications of the works as then in progress, for the guidance of a consulting engineer and contractors, if deemed advisable." Mr. Alma considered that they could not go behind the resolution last named. The surveyor had been given a month to prepare the plans, and had them then ready. Mr. Smith, on Mr. Wigham's recommendation, altered "prepare" to "produce" plans, and Mr. Barnes then brought forward the plans promised by him on that day month. The surveyor further stated that he estimated the cost of completing the works in connection with the slob lands at £2,170, being only £170 above the original estimate. He (Mr. Barnes) liked free discussion on the question of the people's park, and had never tried to cloak or hide any action of his from the commencement of the undertaking. His plans, maps, and estimates were the property of the board, and could be all and severally produced when required. Mr. Ferguson then put a number of queries to the engineer, when the chairman said that if he was going through all the plans, and to examine Mr. Barnes, he would move an adjournment. Mr. Ferguson said that was the usual course. Mr. Wigham considered they were in a dilemma as far as the railway was concerned. Mr. Barnes said that he would be satisfied if Mr. Wigham or any other business gentleman on the board would go with him to the directors of the railway company and there meet their engineer, and he would undertake to satisfy all parties, both the railway and the board, the plans in progress of being carried out were more satisfactory and practicable than those at first submitted to the board and railway company.

ENNIS.—At a meeting of the Ennis Union sanitary board, the salaries of the sanitary medical officers and sanitary sub-officers were considered, in compliance with a request from the Local Government Board, who were of opinion that the augmentations proposed to be allowed were excessive. The following reply was resolved upon:—"Sir,—I have been requested by the board of guardians of the Ennis Union to write to you in reference to the letter of the Local Government Board of 27th November. The guardians desire, before making any alteration in the salaries of the medical officers appointed under the recent Sanitary Act, to allow four months to elapse, during which time they will be able to judge of the duties to be performed by those officers, and what they consider to be a fair remuneration for same. They also desire to call attention to the fact that almost all the salaries had been raised within the last six months, which they took into consideration in fixing the salaries under the Act in question.—INCHQUIN. B. Banks, Esq., Sec."

KILKENNY.—A not very edifying discussion took place at a meeting of the Corporation on the subject of sanitary duties and salaries.

A TOUCH OF THE KILKENNY CATS.—The first matter considered was the salary of the executive sanitary officer, when Mr. Hogan suggested £1 a week was the least that could be given to Mr. Dillon, as executive sanitary officer; however, after some discussion, it was decided that the fixing of the salaries for Mr. Dillon and the medical sanitary officers would be postponed till such time as the salaries of the rural sanitary officers would be settled by the board of guardians and Local Government Board. Mr. Dillon said the work could not be properly carried out without the appointment of two sub-sanitary officers. Mr. Callanan proposed that Kearney, mayor's bailiff, should serve notices, instead of appointing an officer. Mr. Hogan remarked that if the work is to be done, it should be done properly, and be properly paid for. Mr. Dillon stated that there were 26 reports sent in by Dr. Magee, and 6 by Dr. Comerford. Mr. Dillon proceeded to read from Dr. Magee's reports relative to houses in Watergate, and recommending that pigsties should be situated at a good distance from the dwelling-houses; also relative to the danger of accumulating heaps of manure which required removal. There was also a report read from Dr. Magee, referring to the house of Patrick Donnelly of Colliers-lane, and recommending whitewashing, the yard to be made larger, and the erection of a good latrine. Mr. Morris said, to fully carry out the Act it would take all their time, and he thought their officers ought to be recommended not to bring in too much on their hands at one time. Mr. Kenealy observed that the officers ought, on the contrary, to be recommended to do the work as promptly as possible. Mr. Morris remarked that he didn't see the use of bringing in a lot of reports at once, particularly till the last were disposed of. Mr. Potter suggested,

if they took up the worst cases first, it would be a caution to the others. Mr. Shortal, taking up the reports, said that these reports were not *bonâ fide*: they were only got up. The atmosphere smelt very strongly of salaries, but after a while it would calm down, and there would be very few reports sent in. They were all running a-muck with reports now; but the Act would become obsolete after a short time. Mr. Hogan called Mr. Shortal to order; and, addressing the chairman, said that this council as a representative body should throw no disparagement on a profession which next after the ecclesiastical was most deserving of their respect. In the first case, the two gentlemen concerned should not be charged with concocting fraudulent reports. Each of them was highly educated and honorable; and he called on Mr. Shortal, as a gentleman, to retract the foul language he had used. Mr. Kenealy advised Mr. Shortal to withdraw his imputation against the doctors. Mr. Shortal said salaries were in the wind, and—Mr. Kenealy, interrupting Mr. Shortal,—I must object to your speaking thus; we are bound to protect our officers, and we will protect them. Mr. Shortal said he was entitled to hold his own opinion; and he would not be doing his duty if he did not express his opinion as to whether reports were *bonâ fide*. Mr. Hogan told Mr. Shortal that he was welcome to hold his own opinions, but when he promulgated them in that council he should take care to be in a position to prove their correctness, or be ready to withdraw them when they were of a character which could not be tolerated in any representative assembly. Mr. Shortal said that, of course he did not mean anything personal to the officers here; the remarks he made were directed to the general bearing of the results which might follow upon this law. Mr. Kenealy moved that the consideration of all further communications from sanitary officers be postponed until the cases already in hand be settled; and that the persons who have been already reported be warned to abate the nuisances. Mr. Hogan wished to know if this meant that the sanitary officers were to do nothing? Mr. Kenealy said, by no means; let them send in their reports, but let the corporation finish those already before them first. Mr. Kenealy remarked, it would be absurd to be receiving reports, and doing nothing to abate the nuisances; and then, suppose pestilence were to break out, and that no steps had been taken in the matter, what would be the result? After some more wrangling, it was agreed that summonses should be issued against all persons not abating nuisances after being duly cautioned. It appears a main drain is required, so that the sewers can be carried into it. It was agreed that, in future, reports should be sent to Dr. James, as consulting sanitary officer.

KILRUSH.—At a meeting of the guardians, in reference to the disgraceful state of the Kilnihil graveyard, which at present is without a wall or fence to keep off pigs or other animals, the chairman remarked that it was not an unusual thing in the village of Kilnihil to see, daily, swine root up the remains of the dead. Mr. O'Dee, a guardian for Kilnihil, moved that this graveyard be at once walled in. Mr. Brew acknowledged the necessity of walling in this yard, but thought the expenses ought to be borne by the district where it is situated, while Mr. B. Hennessy said there was an Act of Parliament making it a union charge. Mr. Borough concurred, and Mr. S. Hennessy opposed it on the grounds that this was a bad year, and that the rate-payers were overtaxed already. Mr. Blackall thought that any man having any Christian feelings would not oppose a measure to protect the bones of their dead from the ravages of pigs, and when it was stated that pigs had their cabins under the tombstones. Several guardians at this stage commenced to speak together, and a scene of confusion followed for a quarter of an hour, when order was restored; and Mr. Studdert, as an amendment, proposed to have it adjourned until that day six months. This, on being put, was declared lost; and the resolution, on being put from the chair, was declared lost by eight to six.

KINGSTOWN.—At the monthly meeting of the commissioners the surveyor's report was read. It recommended that a meter should be procured to check the water of the Dublin Corporation in supplying Vartry water to the township. Estimates of the cost were ordered to be procured. The supply of this water to the township during November last the report stated to have been 410,000 gallons daily. A letter was read from the Dalkey Town Commissioners, asking the co-operation of this board in opposing the Wicklow Railway Company's Bill, by which it is sought to shut up the sea-shore from Killiney to Bray. In the course of a conversation which ensued, the injurious and inconvenient nature of the proposed measure was fully recognised, it being shown that this and other townships



depended solely on the strand for their supply of sand and gravel. It was resolved that the co-operation asked for should be granted. The report was read of certain conferences with the Board of Works, on the subject of a town-hall and additional sewerage for Kingstown. It appeared that the Government Commissioners demurred to the extent of ground asked by the town commissioners' deputation for a town-hall. The Government Commissioners also stated that the building of an extensive post-office at Kingstown was contemplated, and threw out the suggestion that the town-hall might be amalgamated with this building. The report was adopted. Mr. Stewart stated that the Board of Works had the site in question in perpetuity for the use of Kingstown harbour. A lengthened conversation ensued as to the terms to be offered to the Board of Works in the matter. It was stated that 160 ft. was the extent of the ground allocated for the proposed post-office, with the town-hall attached. It appeared that the town commissioners had engaged two architects to prepare plans for the town-hall. With regard to the amount likely to be subscribed by the county grand jury towards erecting a court-house in conjunction with the town-hall and post-office, it was clearly enunciated that this body would only subscribe towards a plain court-house, quite at variance with the extensive views of the Kingstown commissioners.

**MOUNTMELLICK.**—At a late meeting of the union sanitary authority, there was a brilliant discussion anent the duties and salaries of the medical and sanitary officers. The Local Government Board was lectured, and told the guardians knew their duty, and were not going to be imposed upon to the injury of the ratepayers in increasing doctors' salaries. After a long discussion a motion was carried to increase Dr. Fisher's salary from £15 to £20. Mr. Milbourne said he would propose the salary of the sub-sanitary officer of Mountrath be £15 a-year. Mr. Gaze said it would be illegal to vote such a salary, for they had no power to give more than one-fourth of the salary each officer had before the passing of the Act. Mr. Lane said that he would propose that each of the sub-sanitary officers be allowed £7 10s. each for their new duties. Mr. Cullen asked what had the sanitary officers done for the last four years? They had heard Dr. Jacob state at a previous meeting that the water of certain streams caused fever, but nothing was done to prevent the pollution of those waters. Attention was directed by members of the board to the state of the public pumps and the river at Maryborough, which was stated to be fouled by sewage from the gas works; and a notice of motion was given by a member with a view to reduce the salaries of all the sanitary officers to £15 a-year each. A letter was directed to the board by Mr. Fitzpatrick, of Deerpark, stating that the town of Mountrath was looked upon as a nursery of fever, which is solely caused by the impurity of the water, the greater part of the nuisance of the town being said to fall into a stream from which the whole of the poor who have not pumps get water.

**MULLINGAR.**—At a meeting of the Mullingar Board of Guardians the observations made at the recent meeting of medical men in Dublin, in which the guardians were stigmatized as "ignorant hoors," incapable of understanding the feelings of gentlemen, were the subject of discussion. A proposal to take a civil action against some of the speakers at the surgeons' meeting received serious consideration. It was ultimately decided to postpone the consideration of the subject for a week.

**NAAS.**—At a meeting of the Naas Union sanitary board, a letter was read from the Local Government Board approving of the salaries granted to the new sanitary inspectors, and calling on the board to reconsider the salaries given to the sanitary medical officer, the executive sanitary officer; and that if they did not do so, they would fix the salaries by sealed order. Mr. Trench then gave notice of motion "that he would move on that day fortnight that the remuneration of the medical sanitary officers and consulting sanitary officers be increased from £10 to £15, and that the executive sanitary officer's salary be increased from £10 to £20.

**OMAGH.**—At a meeting of the union sanitary board, Mr. A. C. Buchanan inquired how many patients were in the hospital suffering from scarlatina, and was informed there were five. The chairman said that the houses in town where families were suffering should be closed until the patients were fully recovered. Captain Buchanan stated that the disease was very prevalent in town, but the people wished to keep the matter quiet, for fear of losing custom in their trade. Several letters were read from the Local Government Board regarding the sanitary state of Omagh, and suggesting the immediate appointment of a sub-sanitary officer

specially for Omagh. A memorial from the town commissioners to the Local Government Board regarding this matter was also before the meeting. After some discussion, it was agreed to consider the correspondence at next meeting, when proper steps will be taken to remedy the matter complained of.

**WARRENPOINT.**—At a meeting of the guardians, Mr. Quinn, J.P., submitted a report and plans prepared by Mr. Bower, C.E., Dublin, for providing a supply of water for Warrenpoint. By this scheme it is proposed to construct a reservoir within about a mile of the town, near Burren Chapel, capable of holding a supply for 5,000 people for 100 days, at 30 gallons a head per day. The cost of the work is estimated at £4,800. The report and plans were unanimously approved of by the board of guardians, subject to the sanction of the Local Government Board.

#### BOOKS RECEIVED.

*The Ecclesiastical Architecture of Ireland, to the Close of the Twelfth Century.* With 55 plates. By Richard R. Brash, M.R.I.A., F.S.A. Scot. Dublin: W.B. Kelly. London: Simpkin.

*Inaugural Address delivered before the Royal Irish Academy on Monday Evening, November 30th, 1874, by William Stokes, M.D., &c., President.* Dublin: University Press.

*Cassell's Illustrated History of the United States of America.* Part I.; and *Cassell's Family Magazine.* Part I. Both well got up, and cheap.

#### PUBLIC HEALTH AND PUBLIC ROBBERY.

##### FIRST PICTURE.

At the adjourned monthly meeting of the Corporation, a report was presented from the Public Health Committee, recommending that the salary of Mr. James Boyle, its secretary, be increased from £260 to £300 per annum from the 6th of March last.

Mr. Dockrell moved that the report of Committee No. 1, recommending that the salaries of Messrs. Newman and Morrison, superintendents of the repaving and macadamising of the streets, be increased from £175 to £200, and from £104 to £130 per annum respectively, be adopted.

After the motion had been seconded, some discussion took place.

The Hon. Mr. Vereker observed that this was the very worst time that could be selected for such a motion, as the streets were not scavenged, the paving not attended to, and the macadamising neglected!!

Mr. Gunn was of opinion that the motion was inopportune, and moved that the consideration of the report be adjourned.

Mr. Denny observed that it would appear very strange to the public that a number of business men should assemble, to the neglect of their own affairs, for the purpose of going over business matters relating to the affairs of the city with the view of increasing the salaries of officers.

After some discussion, the amendment was negatived and the report agreed to.

Several other reports were brought up, and the attention of the Lord Mayor having been called to the state of the house—ten members only being present on the roll being called—the house adjourned. Prior to that he handed in an amendment to the adoption of one of the reports under consideration.

The amendment was as follows:—"That the entire time of this council having been wasted in an irregular discussion, concluding in the increase of the salaries of some of our officers, we do now adjourn, regretting this great waste of time."

As there was no seconder, the amendment was not put from the chair.

##### SECOND PICTURE.

At a meeting of the Public Health Committee of the Corporation, a letter from the Local Government Board was read; in it the board notify that they cannot assent to the resolution adopted by the committee at their last meeting, in which they decided on postponing the consideration for twelve months of the increase suggested by the board in the salaries of the medical officers of dispensaries as sanitary officers, with a view of ascertaining in the interval the amount of duty devolving upon each, and the remuneration they would thereby be entitled to. In declining to assent to the proposed postponement of the question, the board notify that they have determined to fix these salaries by an order under seal, based upon the arrangements adopted by the boards of guardians of the North and South Dublin Unions with regard to the sanitary officers in the rural portions of these unions. The following resolution in reference to the

subject was unanimously adopted by the committee, viz.:—"That the law agent of the Corporation be directed to take the opinion of Sergeant Armstrong, Mr. Fitzgibbon, Q.C., and Mr. J. O. Byrne on the question in the letter now read, and that arrangements be made for consultation, if necessary."

**THE INSTITUTION OF CIVIL ENGINEERS.**—A general meeting of this body was held on Wednesday evening, the 9th inst., in the Museum Buildings, Trinity College. The chair was occupied by the president, Mr. Charles P. Cotton. The officers of the council for ensuing half-year having been elected, a paper by Mr. Charles H. Wilson, on "Experiments in the Treatment of Irish Turf at Birdhill," was read by Mr. Smith, hon. sec.; and another paper by Mr. Maurice F. Fitzgerald, describing the process of peat manufacture in the same locality, was read by Mr. Bindon B. Stoney. Mr. Alexander M'Donnell, at a recent meeting, read a paper on the use of peat in locomotives and Siemens's furnace, and a discussion now took place on this and on Mr. Wilson's and Mr. Fitzgerald's papers. Mr. Wilfred Haughton stated that he had tried the use of compressed peat on the Kingstown Railway, and found that its relative value, as compared with ordinary Scotch coal, was about 50 per cent. He got the highest result from air-dried black peat. Mr. M'Donnell said that where there was peat fit for manufacture by machinery, it would pay fairly, but he did not think that peat could be manufactured much more cheaply than by ordinary labour. The discussion was chiefly interesting to engineers connected with railways.

**THE RECENT VISIT OF THE BRITISH ASSOCIATION TO BELFAST.**—The balance in the hands of the committee has been appropriated by the subscribers as follows:—Magnetic apparatus for Queen's College, £120; mechanical laboratory, £100; Assembly's College, £50; Methodist College, £50; Botanic Gardens, £50; Working Men's Institute, balance of surplus (about £100); debt on the Ulster Horticultural Flower Show, £36; and the Belfast Museum, £50.

#### TO CORRESPONDENTS.

**J. L. R.**—Your note of the 4th inst. has been received. As it is not an official communication, we must decline to take any notice of it. The statements you make therein are not strictly correct. We perceive that some of the professional journals have copied original matter from our columns without the usual acknowledgment of source. Architects, as well as editors, should be honourable men.

**J. R.**—Send your address, and your sketch will be forwarded.

**FIRE.**—It is not true that her Majesty's Coachbuilders on "Somer's hill" are vanishing the fire-escapes. The citizens could not bear the expense just now.

**ORTER DICTUM.**—This issue completes our sixteenth volume, and sixteenth year of our existence. We wish all our readers a merry Christmas, pending having a talk with them on the first of the new year.

#### DEATH.

On Monday, December 14th, 1874, at her residence, Sandymount, Dublin, at the age of ninety-four, much beloved and respected, Madame Von Feinaigle, widow of the late Professor Von Feinaigle, of Luxembourg, founder of the Feinaighan Institution, Dublin.

#### LANDED ESTATES IMPROVEMENT.

THE annexed communication is sufficiently explanatory in itself, and needs but small comment on our part, as we have repeatedly, and more particularly for the last few months, devoted several articles to the subject of Land Reclamation—both bog land, mountain waste, and foreshores; and in our present issue additional remarks will be found. We will hail with satisfaction every earnest and honest effort made, whether by the capitalists of the sister kingdom or by native ones, to carry out the work proposed. Early in the new year we may have something further to say upon the subject:—

Langbourne Chambers,  
17 Fenchurch-street, London, E.C.,  
4th December, 1874.

**SIR,**—In the *Dublin Gazette* of the 27th ult. you will doubtless have observed the notice of an intention to apply to Parliament for an Act to incorporate a company under the above title. The objects in view are set forth in the notice, and may be briefly summarised as consisting of the advance of money (or the direct execution of the works) for the drainage, reclamation, improvement, &c., of lands in Ireland, whether by landlords or by tenant farmers (with consent of their landlords); the providing a fund whence the former may borrow money upon easy terms, to pay the compensations constituted under the Land Act of 1870; and other cognate purposes.

In the course of several very lengthy visits to Ireland, I was much impressed, not only with the fact that she presents a wide and secure field for



the investment of capital, but also with the argument used by both the Press and by nearly all intelligent Irishmen, that England scatters her wealth everywhere—in anarchic and dishonest states in South America, and in doubtful enterprises all over the world—except in Ireland, where the security would be undoubted, and the benefits in every sense almost infinite.

Considerable reflection, enquiry, and labour at length led to the preparation of the scheme to which I refer, and which I am now rejoiced to see on its way towards realisation.

In that gratification you will, I cannot doubt, participate. The Press of Ireland—always intelligent and quick to perceive all that may tend to the benefit of the country whose interests it so ably represents—may now render good service by strengthening our hands with its valuable approval, when we come before Parliament to ask that we be organised and empowered by a special Act, and thus be enabled to start on our mission.

The hope is by no means a wild one which I entertain that this company may be but the pioneer to shew to the capitalists of England how well they may serve their own interests by promoting the prosperity of the splendid sister country—rich in her natural resources and gifted people, and but a few hours distant from London. Ireland requires, not grants or subsidies, but the employment of that additional capital which England possesses so fully, and which she needs so sorely. I leave this subject, with every confidence, to your active appreciation.

I would deem it a very great favour if you would kindly take the trouble of addressing to me, and to my friends Messrs. Vallance and Vallance, whose names are appended to the notice, a copy or copies of your paper which may contain any observations that you may be disposed to make relative to this matter—I might even say this movement.

L. C. ALEXANDER, LL.D.

#### NEW WESLEYAN CHAPEL, BELFAST.

We copy the following from our contemporary the *British Architect*, of the 27th ult.:—

"BELFAST.—NEW WESLEYAN CHAPEL.—A memorial church, the gift of Alderman James Carlisle, J.P., to the body to which he belongs in memory of his deceased son, is being erected at Carlisle Circus. The stone employed in its construction is Armagh limestone, with designs of red Dumfries stone. The style is Gothic. The principal entrance, which is embellished with elaborate mouldings, carvings, and capitals, opens from Carlisle Circus. On either side of this door are two niches, in which are to be placed statues of the Evangelists. A spire and tower will rise over the principal entrance, in height from ground to top about 170 ft., and the spire will be adorned with 16 ornamental windows. The west window of the church will be particularly spacious and handsome, being 30 ft. in height and 17 ft. 3 in. in width. There will be no gallery on the church, the ground floor being arranged to seat about 1,000 persons. The entire cost, the whole of which is borne by Mr. Carlisle, will be between £15,000 and £20,000. It is expected that the building will be completed in eight or ten months. Mr. Henry is the contractor, from designs by Mr. W. H. Lynn."

**SPARKLING WINES FROM SAUMUR.**—An interesting article has just appeared in the *Medical Times and Gazette* on Sparkling Wines. In consequence of the recent rise in the price of champagnes it appears that attention has been directed to the district of Saumur, in the north-western portion of France. Dr. Druitt, the author of the article in question, remarks:—"Both in society and in medical practice the use of sparkling wine is largely on the increase. Nothing is so exhilarating with so small a quantity of alcohol in it," and adds that the wines of Saumur, "although perfectly familiar in London, have hitherto been decorated with other names than their own," and that "every year 4,000,000 bottles of wine from Saumur are sent to this country, where it has been ticketed with any name the purchaser chooses to give it." He concludes his article with the following advice: "It surely is foolish to give 4s. or 5s. for a second-rate champagne, when a wine which is either the same identically, or rather one better than the second-rate brands of champagne, may be had for less money." One firm, the Messrs. W. and A. Gilbey, of London, are introducing these wines through the medium of their agents in every town, under what Dr. Druitt calls "the modest and true appellation of Sparkling Wines of Saumur."—*Morning Post*, December 2nd, 1874.

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#### ILLUSTRATION:

CHRIST CHURCH, STRABANE.

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